

THE AMERICAN AGRICULTURIST.



Agriculture is the most healthful, the most useful, and the most noble employment of Man.--Washington.

Vol. I.

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TO OUR PATRONS.

IN issuing the Tenth No. of the American Agriculturist, we cannot refrain from wishing our friends the compliments of the season, and may they, one and all, live to enjoy many a coming merry Christmas and happy New Year. They will find this number handsomely embellished and abounding in valuable original matter. We could have easily made it *entirely original*, as well as all the preceding numbers, but have preferred the course of inserting occasional extracts from our cotemporaries, when suited to our purpose and of a valuable kind. Any one of these, or of the excellent articles contributed by our correspondents, is not unfrequently worth the subscription price of this paper.

Our correspondence is extensive, embracing not only the different States and Territories of the Union, but the British Provinces, and foreign lands. We have taken measures

to still further increase these entertaining and instructive communications, and also to add greatly to the embellishments of our periodical. It is our intention to make the forthcoming volume fully equal, if not superior, in matter and embellishments, to any Agricultural paper in America; and although some may have the advantage of a longer standing before the public, we hope we may be considered equally well entitled to patronage. Will our friends then, come forward to our assistance, and aid us with an efficient patronage, and increased exertions in our behalf?

If each of the subscribers we now have, would procure us FIVE additional names, we think our subscription list would be equal to that of any kindred paper. It is very easy for one and all to do this, and then they would be entitled to a *sixth copy gratis*, and have the consciousness of being co-workers with us, in elevating and enlightening the agricultural class--the *bulwark of the Republic*, and of aiding in spreading such information among it, as ranks second only to sacred and moral literature.

We feel under particular obligations to the press for the kind things already said of us, and as this is a period when new subscriptions to agricultural periodicals frequently commence, we again throw ourselves upon its indulgence, and shall be still more indebted by its future notices of our continued publication, and whenever it is compatible to copy this notice, we desire greatly that it may be done.

Postmasters will please act as agents when agreeable with other duties, and also procure suitable agents for us. It is believed that not one in twenty of the farmers' families in America is yet reached by agricultural publications, and all would be conferring an inestimable good upon this most numerous, useful, and indispensable of all other classes of our citizens, by inducing them to subscribe for and read more works of this kind.

The American Agriculturist is stereotyped and back numbers can always be furnished, and having now an *extensive and fast increasing* circulation, it has become an excellent means of advertising.

We have received a great many flattering testimonials of our course in, and conduct of, this paper; but as we choose to give our readers practical useful matter in these pages, in preference to any thing which can be construed into self-vaunting and puffs, we shall close this address to our patrons, by saying that we do not feel the less grateful for their kind expressions and good wishes, and it shall be our humble endeavors to still further merit them.

Tour in England—No 9.

ENGLISH HORSES.—Notwithstanding what has been said about the degeneracy of the horses of England, the best informed we met abroad, think that on the whole, they are still improving. The forced mushroom growth they now give their racers, and above all, the early age at which they are brought on to the turf are, however, exceedingly prejudicial to their strength and endurance, if not to their speed, and if persisted in, must ultimately, if it has not already, materially injure the breed in these most desirable qualities. There are, however, some exceptions to the above observations. Harkaway, for example, is a real phenomenon, and is thought to be equal to any thing England ever bred. He is a horse of remarkable speed and of prodigious power and substance, standing within an inch of 17 hands, of great bone and muscle, and is considered among turfmen, as the very perfection of form for a race-horse. According to the official report, he won the Goodwood cup at five years old, carrying 130 lbs., performing the distance 2½ miles in 4 m. 58 s., but according to another report, it was done in 4 m. 27 s., which would have been at the rate of a mile in 1 m. 37 s., but English time is very loosely kept, and but little to be depended on, unless reported by our own countrymen. There is no doubt but Harkaway is as good

and fast a horse as Firetail, Eclipse, or Flying Childers ever was; although it is said of the latter, that he run a mile in one minute, and of the former that he performed the same distance in 1. m. 4 sec. But this time is not authenticated, and is, withal, so incredible, that it should be rejected as totally unworthy of record in the calenders of veritable racing.

We could not but admire the beauty of form and great size of the English colts. Most of them stood 15 hands high when brought out at two and a half years old, and some of them were full 16 hands; and as a celebrated jockey remarked to us, "it was really wonderful what the young things would do," and this sententious expression of the shrewd jockey, seems to be the whole gist of the thing, its sport and excitement. But to us it was a painful sight to see animals reared with such care and expense, one half of them broken down in training, and the larger share of the other half in early racing, and then cast like worthless weeds away; whereas, had they been kept till five years old before being brought out, they might have proved of some value, at least, as saddle horses, and for light cavalry. In one particular, however, we will give the English credit over the Americans, they usually make but one run, and to be called upon for four, five, and as it sometimes happens with us, even six heats, would be considered here, as we wish it universally was everywhere else, as the very height of cruelty, and an indictable offence. But this is a painful subject to dwell upon, and little interesting to the agriculturist; we will therefore pass it over, merely premising that owing to the manner in which English horses are now bred, it seems to be generally thought, at least on the western side of the Atlantic, they would prove no match for our racers in deep mud and over hard gravelly courses at four mile heats.*

The hunters of England are now nearly thorough-bred, are strong made, clean limbed animals, stouter and more compact than the racer usually is, and reminded

* Some object to this conclusion as too hasty, and say, for example, that Lady Elizabeth at five years old, carrying 135 lbs. ran four miles at the Doncaster course, in 1833, in 7 m. 35 sec. time almost as good as that of Fashion's late unequalled race in America of same age, and carrying only 111 lbs. But we are confident, on the fine elastic turf of the courses of England, that a horse can carry more weight with greater ease than over the harder and more unelastic courses in America, but as a discussion of this subject is more proper for a Turf Register than this paper, we shall forbear entering further upon it.

us of our finest high-bred carriage-horses, such as the more dashy cits prefer for a display in Broadway, or upon the Third avenue.

Carriage horses differ but little from those among us, save that they are usually larger, 16 hands being the general height, and we have occasionally seen them in most superb shape in the London parks, full 17 hands high. The stage coaches, omnibuses, cabs, &c., are recruited from the broken down hunters and condemned carriage horses, and are of course wofully cursed with grease, corns, founders, spavins, broken wind, and the whole catalogue of horse diseases, so much so, as to make one's heart ache at times, to ride after them; and the cabs, especially, in the *apparent age* and condition of their horses, would occasionally bring Mr. Pickwick's ride to the Golden Cross to memory.

"How old is that horse, my friend?" inquired Mr. Pickwick, rubbing his nose with the shilling he had reserved for the fare.

"Forty-two," replied the driver, eyeing him askant.

"And how long do you keep him out at a time?" inquired Mr. Pickwick, searching for farther information.

"Two or three weeks," replied the man.

"Weeks!" said Mr. Pickwick, in astonishment—and out came the note-book again.

"He lives at Pentonwill, when he's at home," observed the driver, coolly; "but we seldom takes him home, on account of his weakness."

"On account of his weakness!" reiterated the perplexed Mr. Pickwick.

"He always falls down, when he's took out o' the cab," continued the driver, "but when he's in it, we bears [reins] him up werry tight, and takes him in werry short, so he can't werry well fall down, and we've got a pair o' precious large wheels on, so when he *does* move, they runs after him, and he must go on—he can't help it."

Even the very gentlemanly and intelligent coachmen, who otherwise make themselves so agreeable on the road, have a cruel art, with their long lashes, of striking the ears of the jaded horses till they bleed, when they flag under other punishment, and are fearful to fall behind the set time of completing their stage.

As for trotters and a fast enduring compact roadster, we hope no one will consider us prejudiced when we say, that we think England is inferior to America east of the Alleghanies. We easily beat the best English horses on their own ground, with what

would be considered now as third rate trotters with us. They attribute this superiority merely to better training and riding; but according to our limited observation, we found agreat difference in the *animals*, for a few of our friends had American horses here with which we could make the comparison, and they struck us as being for their size, better boned, more muscular, powerful, and compact. In fact we cannot better express ourselves, than by saying, if the power of an English 16 hand horse, with a refinement of bone, were compressed to the size of 15 hands, this would then be the American with his enlarged strength, and a better and quicker action. There is no doubt but our drier climate and silicious soil, tend greatly to the hardening and refinement of bone, and formation of superior muscle with less flabby flesh in all horses bred east of the mountains.

The Galloways of England are much like our snug little horses of the north, but we found nothing here which we thought equal to the French Canadian, or like our Narraganset pacers, or those of Indian breed and celebrity. Nor have we anything so small and pretty in return, as the Dartmoor, Welsh, and Shetland ponies, now so well known among us by recent importations.

The large cart horse is used here more than any other kind for agricultural purposes, and is especially necessary in London and other old towns, to conduct the heavy loads of the brewer and coalman, in ponderous carts and wagons through the narrow crooked streets, harnessed in single file. These animals are very large, generally 16½ to 17 hands high, and sometimes 18 hands. Some of them are good walkers, and being very powerful, are not without merit; but they are great consumers, and have too much flabby flesh to suit our taste. The long coarse hair on their legs from the knee joint down, is very objectionable, and when worked in a heavy soil, it gathers a great mass of clay to each leg, which adds several pounds weight to their feet, and makes one think of a condemned criminal working with a chain and ball attached to him for punishment. This long hair also makes them subject to the grease, as we were informed, a very unpleasant disease of the feet.

Superior stallions of this breed, however, command not unfrequently a large price, and have sometimes sold as high as £1,000. Those we saw in Sussex we thought the finest and best of this breed. They had very little of the objectional long hair upon the

legs, and were more compact generally and active than those we met in other parts of England; they probably had a cross of the old Suffolk Punch in them, which had the reputation in its day of being a very superior farmer's horse.

We saw some specimens of the Clydesdale in the North of England which pleased us much, but in the discussions of Farmer's Clubs here, we notice occasionally a vote passed for the introduction of Norman Stallions from France, to improve their agricultural breed, and we found upon the whole, that there was a more general wish prevailing to lighten the weight of their implements, and procure a more active race of horses to work them. If they do so, with proper attention to the breed, we have no doubt they will get fifty per cent. more work done on the farm, at the same cost of feed and attention which is now bestowed on the generally slow moving and unwieldy cart horses.

We think in the large Pennsylvania wagon horse, we have a breed quite equal, if not superior for our purposes, to the English cart horse. Their origin was doubtless the same, namely, Flanders; and they have undergone a refinement in our climate, and a development and increase of muscle, which we think has added to their value. This is a most excellent breed for the city dray, and indeed all heavy work upon the road and farm. We wish we could see premiums given in Pennsylvania and elsewhere for their improvement, for we have occasionally met individual specimens in that state which we thought quite perfect, and well calculated to impress their form and powers upon a numerous offspring. It is by selecting the best of a race of animals, and continually breeding from them, that has placed England so much in advance of the generality of nations in this particular, and which has added so much also to her wealth, power, and fame.

Generally speaking, we found English stables quite too warm, and have no doubt that this, together with unnatural fast driving over hard McAdam roads, are the fruitful causes of the long list of diseases, especially in the feet, to which horses here seem particularly subject. The horse is treated with too much tenderness on the one hand, and even cruelty on the other, and their whole system of nicking, docking, check reins, blinders to the bridle, curbs, and other harness paraphernalia, which we have inherited and carried to America with us, are greatly to be deprecated. In these respects we might learn many a good lesson of barba-

rous Russia and other nations. We mean to bring these usages and some proposed reforms to the notice of our readers hereafter.

Cultivation of Hemp.

Not being experienced hemp growers ourselves, for most of the information in this article, we are indebted to communications obtained during our residence in Russia, and a tour in Kentucky the past winter and summer, where we saw most of the operations of its culture, preparation for market, and manufacture into rope, cotton bagging, and coarse cloth. We would also acknowledge our obligations to the writings of the Hon. Henry Clay, and Judge Beatty, on this important subject; particularly the Prize Essay of the latter, read before the Kentucky State Agricultural Society.

Character and History.—Hemp, *Cannabis Sativa*, is of the natural order urticae according to Jussieu, or the nettle tribe of plants, and is well known for its strong tenacious fibres, and its use in various manufactures. It is of Asiatic origin, but by the enterprise of man, is now spread and cultivated more or less through the habitable globe, but especially in Russia, where, with its numerous fabrics, it has long been one of the principal exports and sources of wealth to that great and flourishing empire.

Hemp has a deep tap root, with a few fibrous ones attached to it, and the stalk grows from five even to fifteen feet high, dependent upon soil and climate. Its average height, however, on good suitable soil, is about six to nine feet, and when cultivated for a crop of lint, it springs up tall and reedy, with slight tender branches, and leaves of a nettle-like appearance, and deep sea-green color; and with its rank vegetation, pale modest flowers, and great height, waving gracefully in immense fields before a summer breeze, filling the air with fragrance, it presents one of the richest and most beautiful sights in nature. When cultivated in hills for seed, it has quite a different aspect than when grown for lint. The stalks are nearly as tall then, but much larger, and throw out thick strong branches all the way up, so that it has more the appearance of a young tree than a vegetable, in its gigantic matured growth.

Production.—Hemp produces from 5 to 12 cwt. of clean prepared lint per acre; 7 cwt. may be considered, perhaps, a good average crop. The dew rotted is worth now at Louisville, Kentucky, \$3 to \$4 per cwt., water rotted, \$5 to \$6 per cwt.; in this city,

Russia clean commands from \$210 to \$215 per cwt., dew rotted is quite unsaleable. It is not worth while to sow it upon any land that will grow less than 50 bushels of corn per acre, and such as will produce from 70 bushels and above, is still better adapted to it. In Kentucky their best quality of land is set aside for hemp, leaving the inferior soils for corn, the smaller grains, and grass.

Hemp is not considered by many who have cultivated it, an impoverisher of the soil, in as much as by proper management, it derives most of the food necessary to its growth from the atmosphere; and by drying, rotting, and breaking it on the ground where produced, it is contended that more is returned to the soil than is taken away, and as evidence of this, it is asserted, that lands after being 13 to 19 years in hemp without a single season's cessation, gave in their last products, the heaviest and best crops; and this course can be continued till the planter is forewarned by a falling off in the yield, that the soil must be renovated before proceeding further. This is easily done by sowing it to clover and rye pastures, and then feed them off for a few seasons with stock, a longer or shorter number, as the land may demand rest and renovation. This is a very simple rotation, and may also be varied according to soil and situation, with manure, and corn, and root crops. Valuing the land at \$30 per acre, and including interest on it at this rate, taxes and all other expenses, it costs about \$3 to \$3 50 per cwt. to raise hemp, and the growing of it when sold near home at \$4 per cwt., is considered as profitable as corn at 30 cts. per bushel.

Latitude of Cultivation.—Hemp may be profitably grown in America from 35° to 42° of north latitude; we have seen it cultivated on the borders of Canada, as high up as 43°, and understand it has been tried as far south as 33° the past season. In Canada it proved, from the shortness of the season, a stunted crop, and not so valuable as most other farming products. In Mississippi it interfered with the gathering of the cotton, and upon the whole did not realise as much per acre; we may consider, therefore, that the best climate for hemp in this country, is from 37° to 40°, and in making our observations upon its culture, reference will be had more particularly to these parallels.

Soil.—The best soil for hemp is a rich light vegetable loam, of at least one foot depth; not abounding too much in sand, as that would prove too dry for a good crop in general seasons; nor should it have too great

an admixture of clay, as that will prevent its pulverising and working freely, and above all make it too retentive of moisture. Fresh manured ground is not considered so good, as it generally makes too coarse a growth of the hemp; nor is newly cleared land from the forest so suitable on account of its roughness and unevenness, and such as has carried a preceding corn crop is rather to be avoided, in consequence of the roots of the stalks being somewhat in the way of cutting the hemp close, the first year of its cultivation. A grass or clover ley, especially when fed off by sheep, is greatly to be preferred; above all the clover, on account of its deep tap roots penetrating the ground, and filling it with vegetable matter, the best of all food for a hemp crop.

Preparation of Ground.—The field for cultivation should be plowed deeply in the fall or early part of winter, and left in a rough state, so as to have the benefit of the frosts, which tend materially to pulverize the ground, and make it work the more freely the following spring. This also throws open the cut worm, and most other insects which are great enemies to the hemp crop, and subjects them to be destroyed by the severity of winter. When this is done all stock ought to be shut off the field, for wherever they tread they harden the ground and make it lumpy. In performing the fall operation, some even trench the ground, which is easily done by letting a sub-soil plow follow in the same furrow directly after the common plow. If this be not at hand, a common plow will answer nearly the same purpose as a sub-soil plow, by taking off the mould board and leaving the point of the share alone to do the work.

If the soil prove friable and work freely, one plowing and one good harrowing will be sufficient in the spring, if not, it will require two, for it is very essential that the tilth be well pulverised and fine.

Time of Sowing.—Hemp will not stand hard frosts, and the 10th of April, therefore, is considered as early as it may be safely sowed to ensure a good growth; fair crops have been realised sown as late as the 10th of June; but this is precarious, and the best time in ordinary seasons, is considered to be from the 1st to the 15th May, when the earth has become well warmed and vegetation shoots rapidly. On fresh sod ground, where worms and insects are feared, it might be safe to put off sowing till the 20th of May; and in putting in the crop, if a large one, it is necessary to vary the time a little, so as

not to have it all ripen at once, as this would make it quite impossible with an ordinary set of hands, to secure it properly, and much loss would consequently ensue.

Quantity of seed per acre and Manner of Sowing.—Fresh seed and such as has been grown the preceding year, is indispensable, as there can be no certainty of older seed vegetating. The new seed may be easily distinguished from the old, by being found heavier in weight and of a bright red color. The amount used is from 5 pecks to 2 bushels per acre. If the land be in good condition, the first quantity is sufficient, if not, more must be used according to the judgment of the sower. It is safe, however, to err in sowing too much seed rather than not enough; for if too many plants vegetate, the weaker are smothered by the strong, and no more are left to grow than are sufficient to make a good crop. It is usual to sow broadcast, but we think such a drill as is used in this state for sowing plaster and small seeds, would be preferable, for with one of a 12 to 16 feet box, a person would put in 12 to 15 acres per day easily, and at a greater economy of seed, and more evenly than could be possibly done by hand.

After sowing, harrow in both ways, and then brush the land smooth and roll it. The great benefit of rolling is, that it presses the earth well over the seeds, and the better ensures their vegetation, and what is quite as essential, it leaves the ground smooth, so that the hemp can be cut down close to it. The nearer the root is approached in cutting, the heavier the lint; and it is said that three inches more or less of stalk saved near the ground, makes a difference in yield of at least half a hundred weight per acre, which amply pays for smoothing the surface of the ground, and has other advantages in spreading out the hemp to dry upon it, and secures a greater evenness in rotting. If the ground becomes sufficiently hard and crusty on top after rolling to endanger the crop coming up evenly, it is recommended to harrow it with a very fine single horse harrow, in order to loosen the earth, and again roll it after the hemp has appeared a few days. If a moderate rain falls soon after sowing, it will be very fortunate and ensure a rapid and even vegetation. If the ground happen to be very dry at the time of sowing, the seed should be put in with shovel plows, covering it deep enough to ensure moisture sufficient for vegetation; it should then be harrowed and rolled.

(To be continued.)

THE NEW BRITISH TARIFF.

Duties of Customs payable on Goods, Wares, and merchandise, imported into the United Kingdom from foreign parts.

Wheat.—Whenever the average price of wheat, (made up and published in the London Gazette, for six weeks,) shall be for every quarter of 8 bushels—

	£	s.	d.
Under 51s. the duty shall be for every quarter.	1	0	0
51s. and under 52s.	0	19	0
52s. and under 55s.	0	18	0
55s. and under 56s.	0	17	0
56s. and under 57s.	0	16	0
57s. and under 58s.	0	15	0
58s. and under 59s.	0	14	0
59s. and under 60s.	0	13	0
60s. and under 61s.	0	12	0
61s. and under 62s.	0	11	0
62s. and under 63s.	0	10	0
63s. and under 64s.	0	9	9
64s. and under 65s.	0	8	0
65s. and under 66s.	0	7	0
66s. and under 69s.	0	6	0
69s. and under 70s.	0	5	0
70s. and under 71s.	0	4	0
71s. and under 72s.	0	3	0
72s. and under 73s.	0	2	0
73s. and upwards.	0	1	0

Barley.—Whenever the average price of Barley, made up and published in the manner required by law, shall be for every quarter—

	£	s.	d.
Under 26s. the duty shall be for every quarter.	0	11	0
26s. and under 27s.	0	10	0
27s. and under 30s.	0	9	9
30s. and under 31s.	0	8	0
31s. and under 32s.	0	7	0
32s. and under 33s.	0	6	0
33s. and under 34s.	0	5	0
34s. and under 35s.	0	3	0
35s. and under 37s.	0	2	0
37s. and upwards.	0	1	0

Oats.—Whenever the average price of oats, made up and published in the manner required by law, shall be for every quarter—

	£	s.	d.
Under 19s. the duty shall be for every quarter.	0	8	0
19s. and under 20s.	0	7	0
20s. and under 23s.	0	6	0
23s. and under 24s.	0	5	0
24s. and under 25s.	0	4	0
25s. and under 26s.	0	3	0
26s. and under 27s.	0	2	0
27s. and upwards.	0	1	0

Rye, Peas and Beans.—Whenever the average price of rye, or of peas, or of beans, made up and published in the manner required by law, shall be for every quarter—

	£	s.	d.
Under 30s. the duty shall be for every quarter.	0	11	6
30s. and under 33s.	0	10	6
33s. and under 34s.	0	9	6
34s. and under 35s.	0	8	6
35s. and under 36s.	0	7	6
36s. and under 37s.	0	6	6
37s. and under 38s.	0	5	6
38s. and under 39s.	0	4	6
39s. and under 40s.	0	3	6
40s. and under 41s.	0	2	6
41s. and under 42s.	0	1	6
42s. and upwards.	0	1	0

Wheat, Meal and Flour.—For every barrel, being one hundred and ninety-six pounds, a duty equal in amount to the duty payable on thirty-eight and a half gallons of wheat.

Oatmeal.—For every quantity of one hundred and eighty-one pounds and a half, a duty equal in amount to the duty payable on a quarter of oats.

Maize or Indian Corn, Buckwheat, Bear, or Big.—For every quarter, a duty equal in amount to the duty payable on a quarter of barley.

If the produce of and imported from any British possessions in North America, or elsewhere out of Europe.

Wheat.—Whenever the average price of wheat, made up and published in the manner required by law, shall be—

	£	s.	d.
Under 55s. for every quarter, the duty shall be for every quarter.	0	5	0
55s. and under 56s.	0	4	0
56s. and under 57s.	0	3	0
57s. and under 59s.	0	2	0
59s. and upwards.	0	1	0

Barley.—Whenever the average price of barley, made up and published in the manner required by the law, shall be—

	£	s.	d.
Under 24s. for every quarter, the duty shall be for every quarter.	0	2	6
24s. and under 29s.	0	2	0
29s. and under 30s.	0	1	6
30s. and under 31s.	0	1	0
31s. and upwards.	0	0	6

Oats.—Whenever the average price of oats, made up and published in the manner required by law, shall be—

Under 22s. for every quarter, the duty shall be for every £ s. d.
quarter. 0 2 0
22s. and under 23s. 0 1 6
23s. and upwards. 0 0 6

Rye, Peas, and Beans.—Whenever the average price of rye, or of peas, or of beans, made up and published, in the manner required by law, shall be—

Under 30s. for every quarter, the duty shall be for every £ s. d.
quarter. 0 3 0
30s. and under 31s. 0 2 6
31s. and under 32s. 0 2 0
32s. and under 33s. 0 1 6
33s. and under 34s. 0 1 0
34s. and upwards. 0 0 6

Wheat, Meal, and Flour.—For every barrel, being one hundred and ninety-six pounds, a duty equal in amount to the duty payable on thirty-eight and a half gallons of wheat.

Oatmeal.—For every quantity of one hundred and eighty-one pounds and a half, a duty equal in amount to the duty payable on a quarter of oats.

Maize, or Indian Corn, Buckwheat, Bear or Bigg.—For every quarter, a duty equal in amount to the duty payable on a quarter of barley.

Articles.	Of or from For. Countries. £ s. d.	Of or from Brit. Poss. £ s. d.
Apples, raw, bushel	0 0 6	0 0 2
" dried,	0 2 0	0 2 0
Bacon, cwt.	0 14 0	0 3 6
Beef, salted, not being corned beef,	0 8 0	0 2 0
" fresh, or slightly salted, barrel	0 8 0	0 8 0
Beeswax, cwt.	0 2 1	0 1 0
" bleached,	1 0 0	0 10 0
Bones of cattle and other animals, and of fish, (except whale fins) whether burnt or unburnt, or as animal charcoal, ton	0 0 6	0 0 6
Butter, cwt.	1 0 0	0 5 0
Calves, each	0 10 0	0 5 0
Candles, Spermaceti, pound	0 0 6	0 0 6
" Tallow, cwt.	0 10 0	0 10 0
Cheese,	0 10 6	0 2 6
Cider, tun	10 10 0	10 10 0
Colts,	1 0 0	0 10 0
Copper, Ore of, not containing more than 15 parts copper, per ton of metal,	3 0 0	0 0 0
" Containing not more than 20 ditto,	4 10 0	1 0 0
" Containing more than 20 ditto,	0 7 6	0 10 0
Copperas, blue, green and white, ton	1 0 0	0 10 0
Cows, each	0 15 0	0 7 6
Cranberries, gallon	0 0 1	0 0 1
Cucumbers, Preserved,	10 per ct.	5 per ct.
Eggs, 120	0 0 10	0 0 2½
Foals, each	1 0 0	0 10 0
Fruit, Raw, not otherwise enumerated,	5 per ct.	5 per ct.
Gypsum, ton	1 11 8	0 1 3
Hams and Bacon,	0 14 0	0 3 6
Hay, load	0 16 0	0 8 0
Hemp, Dressed,	0 4 2	0 2 0
" Rough, or Undressed, or any other vegetable substance of the nature and quality of undressed hemp, and applicable to the same purposes, cwt.	0 0 1	0 0 1
Honey,	0 10 0	0 5 0
Hogs, each	0 5 0	0 2 6
Hops, cwt.	4 10 0	4 10 0
Horses, each	1 0 0	0 10 0
Lambs,	0 2 0	0 1 0
Lard, cwt.	0 2 0	0 0 6
Lead, Ore of, ton	0 10 0	0 2 0
" Black, Pig and Sheet,	1 0 0	0 5 0
" Red,	1 10 0	0 15 0
" White,	2 5 0	0 2 6
Manure, not otherwise enumerated or charged with duty, ton	0 0 6	0 0 6
Mares, each	1 0 0	0 10 0
Meat, Salted or Fresh, not otherwise described, cwt.	0 8 0	0 2 0
Mules, each	0 2 6	0 1 3
Oil, Animal, Raw, not otherwise enumerated, cwt.	0 1 3	0 1 3
" Linseed, Rape, Hemp, tun	6 0 0	1 0 0
" Olive,	2 0 0	1 0 0
" Seed, not otherwise enumerated or described, tun	6 0 0	1 0 0
" Or Spirit of Turpentine,	0 5 0	0 2 6
Pears, Raw, bushel	0 0 6	0 0 3
" Dried,	0 2 0	0 2 0
Pickles of all sorts, including the vinegar, and not otherwise enumerated, gallon	0 1 6	0 0 9
Figs, Sucking, each,	0 2 0	0 1 0
Plaster of Paris, ton	1 0 0	1 0 0
Pork, Salted, (not Hams), cwt.	0 8 0	0 2 0

	£ s. d.	£ s. d.
Pork, fresh,	0 8 0	0 2 0
Potatoes,	0 0 2	0 0 1
Poultry,	6 per ct.	2½ per ct.
Plants, Shrubs, and Trees alive,	Free	
Puddings and Sausages, pound	0 0 3	0 0 1
Quills, Goose, thousand	0 0 6	0 0 3
" Swan,	0 3 0	0 1 6
Quinces,	0 1 0	0 1 0
Rice, not rough, nor in the husk, cwt.	0 6 0	0 0 6
Rice, rough and in the husk, quarter	0 7 0	0 0 1
Seed (Oil) Cake,	0 1 0	0 1 0
Grass of all sorts, not particularly enumerated or otherwise charged with duty, cwt.	0 5 0	0 2 6
All other seeds not particularly enumerated or described, or otherwise charged with duty, commonly used for expressing oil therefrom, quarter	10 per ct.	5 per ct.
Garden Seeds, not particularly enumerated or described, or otherwise charged with duty, pound	0 0 1	0 0 1
Sheep, each	0 3 0	0 1 6
Silk, Raw, pound	0 1 0	0 0 6
Thrown, not dyed, viz:—Singles,	0 1 0	0 0 6
Manufactures of Silk, or of silk and other materials, or articles of the same, wholly or in part made up, not particularly enumerated, or otherwise charged with duty,	30 per ct.	30 per ct.
Silkworm Gut,	20 per ct.	20 per ct.
Deer Skins, Undressed, skin	0 0 1	0 0 0½
Spermaceti, Fine, ton	25 per ct.	25 per ct.
Spirits or Strong Waters, not the produce of any British possessions, and not being sweetened spirits mixed with any article, so that the degree of strength thereof cannot be exactly ascertained by such hydrometer, gallon	1 2 6	
Starch, cwt.	0 10 0	0 5 0
Stone and Slate, hewn, ton	0 10 0	0 1 0
" Marble, sawn in slabs or otherwise manufactured, cwt.	0 3 0	0 1 6
Sugar and Molasses, until 5th July, 1843, viz:—Brown or Muscovado, or Clayed Sugar, not being refined, cwt.	3 3 0	
" Maple, if accompanied with a certificate of its being the produce of a B. P., cwt.		1 4 0
" If not accompanied by such certificate,	3 3 0	
Swine, each	0 5 0	0 2 6
Tallow, cwt.	0 3 2	0 0 3
Tar, per last, containing 12 barrels, each barrel not exceeding 31½ gallons,	0 2 6	0 0 6
Tobacco, Unmanufactured, pound	0 3 0	0 3 0
" Snuff,	0 6 0	0 6 0
" Manufactured, or Segars,	0 9 0	0 9 0
Tongues, cwt.	0 10 0	0 2 6
Turpentine, viz:—Not being of greater value than 9s. per cwt.,	0 0 1	0 0 1
" From 9s. to 15s. per cwt.,	0 1 0	0 0 3
" Above 15s. per cwt.,	0 5 0	0 2 6
Vegetables, not enumerated or described,	5 per ct.	2½ per ct.
Vinegar, tun	18 18 0	18 18 0
Walnuts, bushel	0 2 0	0 2 0
Wax, Bees, cwt.	0 2 0	0 1 0
" " in any degree bleached,	1 0 0	0 10 0
Timber of Wood—Not being deals, battens, boards, staves, handspikes, oars, lath-wood, or other timber or wood, sawn, split or otherwise dressed, except hewn, and not being timber or wood otherwise charged with duty, from and after the 10th October, 1843, the load of cubic ft.	1 10 0	0 1 0
Timber or Wood—From and after the 10th October, 1843,	1 5 0	0 1 0
—Deals, battens, boards, or other timber or wood, sawn or split, and not otherwise charged with duty, from and after the 10th October, 1843, until the 10th October, 1843, the load of cubic feet	1 18 0	0 2 0
" From and after the 10th October, 1843,	1 12 0	0 2 0
Handspikes, not exceeding 7 feet in length, the 120	1 0 0	0 0 6
" Exceeding 7 feet, the 120	2 0 0	0 1 0
Hoops, not exceeding 7½ feet in length, thousand	0 2 0	0 0 4
" Not exceeding 9 feet in length, thousand	0 3 0	0 0 6
" Exceeding 9 feet in length, thousand	0 5 0	0 1 0
Knees, under 5 inches square, the 120	0 10 0	0 0 3
" 5 inch and under 8 inch,	2 0 0	1 0 0
Lath Wood, per fathom, 216 cubic feet,	2 0 0	0 1 0
Oars, the 120	7 10 0	0 3 9
Spars or Poles, under 22 feet in length, and under four inches in diameter, the 120	1 0 0	0 0 6

" 22 feet in length and upwards, and under 4 inches in diameter.....the 120	2	0	0	£	s.	d.
" All lengths, 4 inches and under 6 inches in diameter.....4	0	0	0	0	2	0
Spokes for wheels, not exceeding 2 feet in length,.....thousand 2	0	0	0	0	1	0
" Exceeding 2 feet in length.....4	0	0	0	0	2	0
Billet or Brushwood, used for stowage, £100 value 5	0	0	0	0	5	0
Cotton Wool, or waste of cotton wool, cwt. 0	2	11	0	0	0	1

REMARKS.—There is an additional duty added to the above of 5 per cent.

The *pound sterling* is estimated by our own government at \$4 84, and as there are 240 pence in a pound, the *penny* may be taken for *two cents* nearly, United States currency.

The highest duty on Flour, (the barrel being estimated at 38½ gallons of wheat,) imported from the United States, is \$2 78; and on Colonial 69 cents, the duty being more than four times as much on the former as is charged on the latter. But this does not fully show the difference in favor of Colonial flour, as it will be perceived by the foregoing table, that while the duty on grain and flour from the United States, is reckoned from the average price of 51s. per quarter and under, to 73s. and upwards, the Colonial is reckoned only between 55s. and under to 58s. and upwards; consequently, whenever the price averages 58s. and over, it is admitted at 1s. per quarter, from the Colonies, while from the U. States, at 58s. it pays a duty of 14s.; from which point it slowly recedes till it reaches the minimum at 73s. which is scarcely ever attained in the English market. Again: while the Colonies pay no duty above 5s. which is reached at the average price of 55s. the States pay a duty of 17s. on this average, which is increased to 20s. when the average recedes to 51s. and under. This deceptive sliding scale has been so adroitly graduated by British statesmen, from a knowledge of its practical working for the last 50 or 100 years, that it effectually secures to the Colonies a market at all times accessible at very low duties, while to the citizens of our own country, it amounts almost to a prohibition, at all times. The present duty, though nominally reduced from the former, about 50 per cent. at its maximum, yet it is so discreetly arranged for the protection of the Home and Colonial Agriculturist, as to afford nearly the same result in the average duties levied on the exportations from the U. States.

By Mr. Gladstone's bill, passed by the late English Parliament, and approved by the Sovereign, July 16, 1842, entitled "The Provisions Abroad Bill," all flour imported into the British possessions after July 5th, 1843, will pay a duty of 2s. sterling, and salted provisions 3s. sterling per cwt.

Wheat, without further regulation, will continue to be admitted free, on condition that it is consumed in the Provinces. But it is perfectly evident to us, that it is no part of the policy of the British government, to shut out trade from this country through their Canadian possessions. She intends making them the conduit, by which our luxuriant Western harvests are to be drained off to supply her artisans at home, (who are more profitably employed than in raising their own provisions,) till they have become sufficiently advanced to furnish supplies from their own luxuriant fields. To what other motive is to be attributed the alleged loan of £5,000,000 from the *British Government* to the Canadian authorities, for the construction of their splendid lines of canals, connecting the detached points of their inland navigable waters, so as to admit the ready passage of an ocean steamer, full freighted from the docks at London or Liverpool, to the farthest point now reached by the water craft of our inland seas? What a contrast this far reaching policy of England's statesmen furnishes to some of our petty Solons, mousing around the scanty crumbs of an almost empty treasury, while a bolder and more liberal policy would fill their coffers with wealth! Soon we may see the vessels of Bristol and Glasgow, discharging their full cargoes at Chicago and the Sault St. Marys, while they kindly relieve our American shipping from the trouble of bringing down the rich products of the West.

To relieve our readers of any doubts on this most important subject, we quote briefly from a dispatch forwarded by Lord Stanley to Sir Charles Bagot, dated Aug. 17, which has but this moment met our eyes. He says—

"Her Majesty's Government desire to observe, that, under the 37th and 38th clauses of the Possessions act, 3 and 4, William IV. c. 59, which are unrepealed by the act of this session, any article may be entered, at any of the frontier ports of Canada, without payment of duty, and may be delivered to be passed on to one of the warehousing ports, under bond for the due arrival and warehousing of such goods at such port. The existing exemptions would relieve parties from the observance of those regulations, and from any charge attending their fulfilment, in respect to the articles to which they apply. Her Majesty's Government, however, question whether these exemptions ought not to be extended to other articles besides flour and salt meat; and they think, that if the St. Lawrence is really to compete with the Erie canal, the freedom which it offers should extend to all articles, embraced by the export trade of the agricultural States of the West, and not merely to a selection from any of them.

"If, therefore, it should appear of more importance to the inhabitants of Canada, to retain, or to receive and extend the power of transmitting the produce of the

United States, without the restrictions of the bond now required, down the St. Lawrence, than to enjoy the privilege of exporting their produce to other British colonies, with such advantages as the differential duties, imposed under the new act, may afford them, Her Majesty's Government have no desire to place the commerce of Canada, by Imperial legislation, under restrictions, farther than as they are required, by a due regard to the rights of the inhabitants of the other possessions of the crown; and therefore, they would readily consider the expediency of proposing to Parliament, to remove the duties now laid on the introduction of flour, salted meat, and any other article of agricultural produce into Canada, at the same time, however, placing the same articles, when exported from Canada to the other colonies, upon the footing, with respect to duty, of foreign produce, at the Custom Houses of those colonies, and requiring proof of their privileged admission into the country.

"Her Majesty's Government are most willing, independently of the suggestion which has been just made, to entertain any plan for giving farther facilities to the transit of the produce of the United States, by way of the St. Lawrence, in case it should be considered that a system of branding packages, or any other mode, would be more simple and satisfactory for the purposes of commerce than a compliance with the provisions of the present law.

The statesman who can fail to perceive the drift of England, shadowed forth in the above exponent of their policy, is only fitted to draw instruction from his horn book.

We will only add that *Wheat* is admitted free of duty in all the British Possessions of N. America.

Flour is admitted free, in Upper and Lower Canada, while in New Brunswick and Nova Scotia, it pays a duty of 5s. sterling per bbl.

In the British West Indies, it pays both an Imperial and Colonial duty; the first fixed and regulated by the Home Government; the latter fluctuating, and dependent solely on the whim or caprice of the members of the Local Legislation.

VALUE OF A HOME MARKET.—We clip from an exchange paper the following list of articles consumed by a single manufacturing state, which shows very conclusively where our western products will find a satisfactory market, if our manufacturers are sufficiently protected.

"Massachusetts is a manufacturing state. Her population, in round numbers, is 700,000. In a single year that state purchases and consumes enough of the products of the soil, &c., to require the expenditure of \$42,000,000. The following are the items of expenditure:

Cotton,	185,000 bales,	\$7,200,000
Flour,	620,000 bbls.	4,100,000
Corn and other grain,	3,730,000 bush.	2,790,000
Coal,	175,000 tons.	1,300,000
Wood,	188,600 cords,	1,300,000
Wool,	8,000,000 lbs.	3,200,000
Lumber of all kinds,		3,690,000
Amount carried forward,		\$23,580,000

Amount brought forward,		\$23,580,000
Leather and hides,		7,600,000
Beef, pork, hams, and lard,		2,800,000
Butter and cheese,		1,000,000
Horses, cattle, sheep, and swine,		600,000
Potatoes,		300,000
Poultry of all kinds,		70,000
Pig lead,		1,450,000
Furs, buffalo robes, &c.,		45,000
Rags, junk, &c., for paper,		965,000
Lime	8,299 casks,	72,000
Pot and pearl ashes,	500 tons,	58,000
Tobacco,	960 hhds.,	68,000
Rice,		325,000
Tar, pitch, and turpentine,		1,200,000
Iron,		800,000
Sugar and molasses,		47,000
Staves, casks, boxes, &c.,		360,000
Domestic spirits and beer,		100,000
Feathers, hair, and bristles,		185,000
Oysters, venison, sand, sweet potatoes, summer fruit, such as peaches, melons, &c.,		210,000
Hay, grass seed, flax seed, flax linseed oil, castor oil, beans, beeswax, tallow, onions, nuts,		175,000
		\$42,010,000

"We have no statistics referring to the consumption of other manufacturing districts, but it is known that other states of the Union manufacture almost as much as Massachusetts—possibly more. If adequate protection were extended to domestic industry, manufactories would multiply and extend themselves, employing millions of idle capital, and bringing into requisition the services of thousands of idle citizens; so that in a few years, the western and southern planter would find, at his very door, as it were, an adequate market for all his surplus supplies. The advantages of a home market over a foreign one, are apparent to all minds, and therefore do not need elucidation."

THE PORK BUSINESS OF THE WEST.

Few of our readers, if they have never crossed the valley of the Ohio, penetrated the Wabash, and stood on the banks of the Upper Mississippi, can have even a faint idea of the fertile corn region which stretches out here in almost boundless magnificence, and of the immense herds of swine that are reared to consume it. The census for 1839 gives to the four states of Kentucky, Ohio, Indiana, and Illinois alone, nearly eight millions of swine, and we suspect this is rather under than above their real number. But from this data it will be seen what an extensive business the rearing and fattening of pork has already become in the West, even with its present sparse population; what then must it be, when the whole of this immense valley comes to be put under a high state of cultivation!

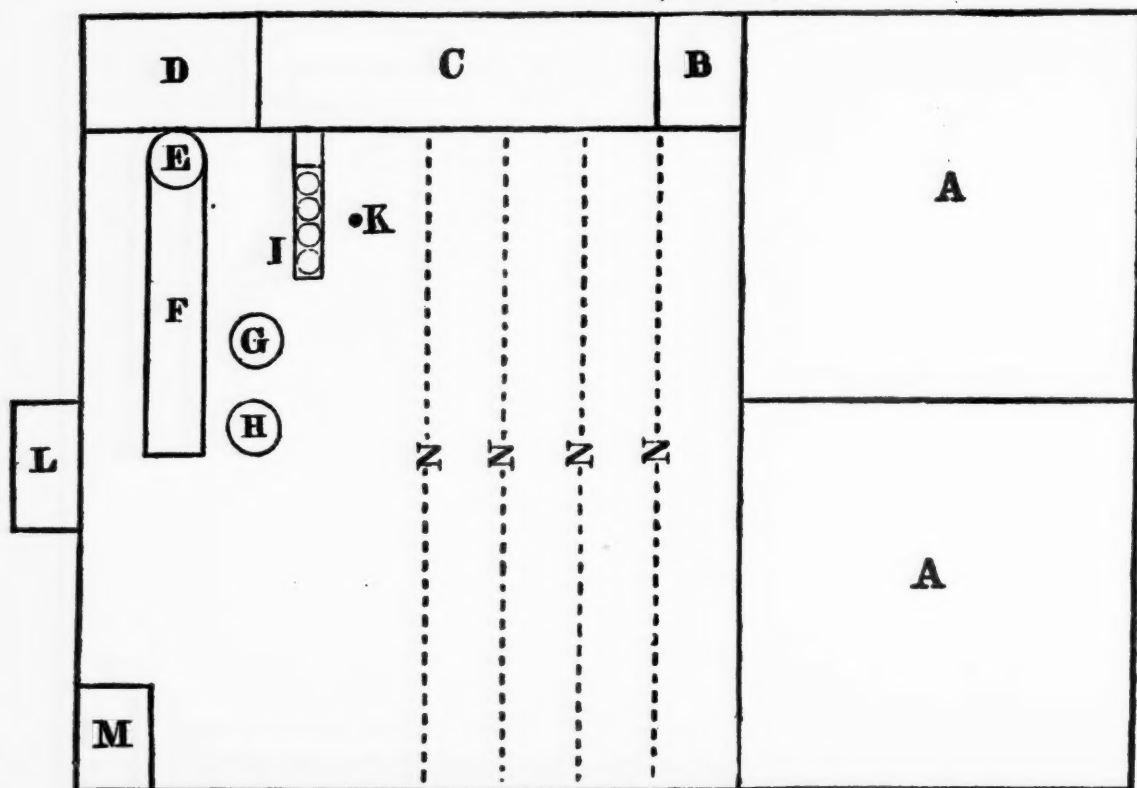
Wherever one passes through the towns and villages, on the canals and rivers, he sees large slaughtering and packing establishments; and on the roads, in almost every direction, from November till the last of January, he meets droves after droves of

swine, blocking up the way with their bulky proportions, and puffing and shouldering clumsily along, leading the astonished traveler to infer, that the fields and forests on his route are absolutely swarming with fat grunTERS.

Cincinnati is the greatest point for killing

and packing in the West, and as the establishments for these purposes are on a large scale, and considered quite a curiosity, we were prevailed upon to visit them. But before entering upon a description, for the better understanding of the subject, we give a ground plan of a slaughtering establishment

SLAUGHTER HOUSE.—(FIG. 21.)



A A, pens for hogs driven in from the country, which can be added to at pleasure. B, sloping platform, up which they are driven as fast as wanted, to be slaughtered, into the killing pen, C. C, killing pen. D, slatted platform, to which the hogs are drawn after stuck, to bleed. K, pump. I, kettles for heating water, with furnace beneath. E, large kettle for scalding the hogs. F, a long dressing table. G, warm water. H, cold water. L, recess for stripping off fat from the offals, &c. N N N N, beams with hooks in them, from which the animals when dressed are suspended to cool. M, counting room.

As we entered this, we found at the end of the building marked C, that the animals were driven in as close crowded as possible, and were now rapidly knocked down and stuck, and then hauled on to the grating, to bleed and cool at D. From this they were thrown by the half dozen into the huge scalding kettle E, where after lying a minute or so, they were swung out on to the platform F, and then immediately dressed and hung up by the hind legs close by. The offal was next taken

out, and the animal dashed down and neatly cleaned off with cold water, and then carried away and suspended from the numerous beams, N N N N, the sides pressed open with sticks, and so kept for a day or two, till sufficiently dried, cooled and stiffened, for good packing.

The celerity of the operations was more rapid than we can write, and presented a scene which we shall not readily forget. The whole building was covered with blood, and the men engaged there, stained and bespattered with it from top to toe. We never saw so ferocious a looking band; and as they moved swiftly about in their murderous work, in bloody overhauls, leather aprons, short tucked up frocks, turbaned heads, and bare blood-stained arms, flourishing long sharp knives in their hands, they reminded us more of the diabolical sansculottes of the massacring scenes of the French revolution, than any thing else of which we ever heard or read. Heaps of offal lay outside, and carts were passing to and fro, carrying it off for manure, while from beneath the building, down a deep ravine, ran out a bloody

stream, as if an army had been slain to feed its bubbling course. We did not get over the appalling sight for months, and it would be no small temptation that should ever induce us to enter a slaughter house again.

At the packing houses there is nothing disagreeable, and we visited them with pleasure. After getting thoroughly cool, generally the second day from killing, the hogs are brought here, and cut up and salted, and barreled into pork, or prepared for bacon, as is most desirable, and the lard taken out to be pressed into kegs, or manufactured into oil and candles. And here a pig is prepared to be cured with even more despatch and scientific skill than he is killed and dressed.

Two men take their positions on opposite sides of a large cutting block, each armed with a cleaver and knife, while two others stand by with hooks, to throw the animals up as fast as wanted. At the word of command, "Hog up," these last swing him on to the block. "Head off," cries the most adroit cutter, and down comes the cleaver, and at one stroke it is done. "Turn him over," is the next order, and three strokes divide the carcass in length through the back bone. Each of the cutters now goes to work with his half. One blow with the cleaver, for each leg below the knee, or gambol joint; one belly cut with the knife, and the fat is peeled off; then six more, each one with their cleavers, dispatches the sides for barreling; the hams and shoulders being taken away to be trimmed, and the hog is finished at twenty two strokes, about as fast as one can count. In addition to the cutters and their two aids, a sufficient number of persons are employed at the same time there, to bring the hogs to the cutting block, and salt the meat, and try out the lard, as fast as prepared.

The packing houses of Cincinnati are generally large, substantial brick buildings, with every thing ample and complete within and without. The cutting up and salting, and pressing out the lard is done on the first floor; the deep cool cellars are appropriated to the storage of the lard, and pickling hams and shoulders. Here also is the furnace for the fire, while overhead, all the way to the roof, the smoke-house is partitioned off from the other rooms of the building, where a proper number of posts and slats, and beams in tiers, are arranged over each other, for the purpose of suspending the pieces to be smoked.

To give an idea of the capacity of one of these houses for the business, the intelligent proprietor informed us, that 1500 hogs could

be cut up in a single day, 800,000 lbs. of bacon could be smoked at a time, and 4,000,000 lbs. within a season of about three months.

During the season ending February, 1839, not less than 210,000 hogs were cut up at Cincinnati, averaging 175 lbs each, and making 36,750,000 lbs. In 1840, 150,000 heads, averaging 210 pounds each, and making 31,500,000 lbs. The numbers since this have been somewhat lessened; that of 1842, was supposed to be not over 110,000 hogs. Various causes are assigned for this falling off in Cincinnati, such as the low price of pork, not making it sufficiently tempting to bring it, in some instances, to market; rival packing establishments built up in the country; and an unusual number of hogs driven over the mountains, for a higher price at the Eastern markets.

The business of purchasing and packing, for the three past years, has been ruinous to many engaged in it; for the market during this time has been constantly falling, and neither buyer or seller could make any calculations in reference to it. But we think pork has now reached its lowest price. It will not be the all engrossing product as heretofore, when it brought such high prices, and since the reduction of duty upon it in England, larger quantities will be exported hereafter; and by the late regulation of our own tariff, our artisans and mechanics will be on the increase and more fully employed; so that the market for pork, both at home and abroad, is likely to undergo a gradual improvement the coming season. Another great reason why the price of pork should improve, is that lard now in large quantities is manufactured into oil and candles, making it a profitable business to try up whole animals, if very fat, for this purpose, without reserving any part of them for pork or bacon. We trust that the present low price of pork will increase the spirit of improvement among our farmers in the breeds of their swine, rather than slacken it; for when the article is low, the more pains should be taken to cheapen its production, by adopting a superior animal, which again will be likely to increase the consumption; for the better the meat, the more there will be eat of it, and the less of other things.

Protection of Coarse Wool.

We have had numerous enquiries and complaints as to the supposed inadequacy of our present tariff, for the effectual protection of our coarse wools. In reply, we beg leave to

say, there is a practical working in matters pertaining to the imposts levied on articles imported into this country from abroad, whether coming into competition with home productions or not, that frequently disappoints popular expectation, and differs in toto from the theoretical notions and cherished principles of the political economist. The opinions, therefore, of a practical man, who is thoroughly conversant with the effect of certain rates of duty, on any article, are particularly desirable.

When the present tariff was under discussion in the House, there was an intelligent and influential delegation of wool growers, whose information and opinions were fully considered, and to a great extent, incorporated into the bill. This tariff has been in operation only four months, and its effects, as yet, cannot be determined. Our farmers do not expect even a crop of wheat within so short a time, much less a fruit-bearing orchard.

We all know how easy a thing it is to destroy property, credit, currency, trade, and prosperity; and we know equally well, the difficulty and delay in restoring it. Confidence, it is justly said, is a plant of slow growth, and those who have unfortunately lost it, must not only diligently use the means, but patiently abide the time of its restoration. Prices have fallen, ruinously fallen, and every farmer and artisan in the United States is suffering from the general derangement and depreciation. The tariff, if maintained in its general scope with such modifications as may be found expedient, will unquestionably restore things to their wonted condition; especially if Congress adds to it, a safe, sound *National Currency*. But its progress without this other powerful aid, will be slow though sure. Time, however, is requisite to give it full effect. The manufacturers of our country have been so often misled by a vascillating policy on the part of our Government, that they have become wary of embarking capital, when the uncertainties of protection are so great. But let it once be understood, that *protection to American industry*, at least for revenue, is the settled policy of this Union, and the hum of the spindle will be heard from Maine to Louisiana, and from the Atlantic to the Upper Mississippi, and the planter and the farmer may then rely on a steady demand for all their products, and at remunerating prices.

On the subject of wool, especially *coarse wool*, we shall take the opinion of the Hon. Horace Everett, of Vermont, now a member

of Congress, and a sound headed, practical, intelligent man, who has given much attention to this subject. He says:

"None but *coarse wool*, costing 7 cents and under, is admitted under the 5 per cent. duty. The term *coarse* will exclude Merino Wool of all grades, and the best of the staples of the native wool: it was intended, particularly, to meet the mixed grades imported from Buenos Ayres. Another amendment provided that if wool of different kinds was imported in different bales, but in the same invoice and at the same price, the *ad valorem* duty should be levied on the whole according to the value of the best bale. It had been practiced to import five kinds of wool in separate bales, but at the same price, viz. the average price of the whole. This enabled the importer to enter the whole at a price under 8 cents. But under these two amendments, all felting wool will be excluded from admission under the 5 per cent. duty.

The coarse long wool, used principally for blankets and carpets, does not very materially compete with any portion of our wool. The short felting wools, though *coarse*, do in some degree compete with a portion of ours. They are used in the manufacture of satinets and negro cloths. There are, however, two considerations to oppose to this competition. The first is, that if coarse long wool was excluded, the manufacturers' articles would come in, in their place; and the second is, that it is necessary to yield something to other interests to strengthen our own.

We were alarmed at the great importation of felting wool in 1841, from Buenos Ayres, under 8 cents, and free of duty. The average prices before referred to, and the low prices there, occasioned by a long blockade, alone enabled the importers thus to import it, and I assert my belief that, hereafter, no wool that our manufacturers will use for making felted cloths, can be imported from that place as low as 7 cents:—nor even under 10 cents.

By another amendment a *specific duty of 3 cents per pound* was added to the *ad valorem* duty.

The effect of all these amendments will be to raise the duties on the low priced fine wools, and including most if not all the felting wools from Buenos Ayres, as follows:

On wool costing 4 cents per lb.	121	per cent duty.
" " 5 " "	103	" "
" " 6 " "	90	" "
" " 7 " "	82	" "
" " 8 " "	78	" "
" " 9 " "	71	" "
" " 10 " "	67	" "

The duties in addition to the protection afforded by the charges of importation will, in my opinion, be an ample protection against the low priced wools from Buenos Ayres, or from any other quarter. The question is, to what point can this foreign competition reduce the price of our wool—at what price per pound can wool of a staple equal to ours be imported?

The items which compose the cost of importation, are

1. The price per pound,
2. 3 per cent. commission,
3. 2 cents per pound for freight, and other charges on the freight,
4. 1 per cent. insurance.
5. 3 per cent. for six months interest on cost, from the time of the order of purchase to the time of sale.
6. 10 per cent. profit on cost, charges and duties.

These are stated as the average rates.

Another very important fact is, that the Buenos Ayres wool is imported in so foul a state that it takes

} On these the *ad valorem* duties are assessed.

two pounds to equal one pound of ours, as washed on the sheep. Our wool loses, in cleansing, one-third of its weight:—the Buenos Ayres wool loses two thirds; in other words, it takes 1½ pounds of our wool as washed on the sheep to make 1 pound of cleansed wool; while it takes 3 pounds of Buenos Ayres wool, as imported, to make 1 pound of cleansed wool. The question, then is, at what prices can 2 pounds of this wool be imported? The following is the answer, for wool costing from 4 to 10 cents:

	charges.		duties.		cost of 1 lb.		cost of 2lb.	
	cts.	cts. mills.	cts.	mills.	cts.	m.	cts.	m.
Cost of 1lb.	4	3 4	4	9	12	3	24	6
"	5	3 6	5	2	13	8	27	6
"	6	3 8	5	5	15	3	30	6
"	7	4 0	5	8	16	8	33	6
"	8	4 2	6	1	18	3	36	6
"	9	4 4	6	4	19	8	39	6
"	10	4 7	6	7	21	4	42	8

But the question may be asked, how does it happen that the price of Buenos Ayres wool is now so low?

It is quoted in the Boston market at from 7 to 10 cents. The answer is, that what remains for sale is probably of the poorer qualities—was purchased during the blockade, at low prices, and was imported free of duty, and is sold without a profit, if not at a loss. The same general causes which have depressed the price of our own wool, have affected the price of all foreign wool in our market. These general causes may afford the subject of another letter.

I have thus far restricted myself to the consideration of the tariff, as a protective against low priced foreign wools—and more particularly against those from Buenos Ayres. I will add further, that it is most probable, under the present tariff, that none but *coarse* wool will be imported from that place in the state heretofore imported, but will be first cleansed. The three pounds of foul wool will be reduced to one pound of cleansed wool—to avoid the 3 per cent duty; paying it on one pound instead of paying it on three pounds. This wool, however, will never be equal in value to ours, or other foreign wool of the same fineness. It is not suited to make broadcloths, because it cannot, on account of the burrs with which it is filled, be stapled either before or after they are picked out.

The fine wools imported from Europe and Australia into our ports, were entered in 1840, at from 33 to 34 cents per pound. The fleeces, however, are cleaner and closer trimmed than ours. The price, compared with our wool as washed on the sheep, may be rated at 27 cents per pound, as the foreign value. This, with 8 cents for charges of importation and profit, and 12 cents for duties, would make the price here 47 cents, or, without a profit, 43 cents.

Such, in my view, is the effect of the tariff of the last session. Yet it does not do all that, in my judgment, ought to be done. This country produces wool sufficient for all its wants. I wish to see done, for this interest, what is our true national policy for every great agricultural interest: and that is, in relation to every agricultural product, when we produce an abundance and there be no danger of monopoly, that duties should be laid, not merely for protection, but for prohibition. We have done this for *cotton*, and why should it not be done for *wool*.

December Notes from Buffalo to New-York.

The first place we stopped at was our excellent friends the Messrs Raynors, who are pleasantly situated on a fine farm in the town of Clarence, about 18 miles from Buffalo.

Their soil, as indeed much of this region, is underlaid by porous ledges of limestone, generally a few feet below the surface, but sometimes cropping out so as to leave the rock naked to the eye. In addition to these ledges, there is more or less stone scattered over the land, in detached pieces, varying in sizes from a pebble up to considerable of a rock, and answer well for making fence for the farm. Though presenting slight obstructions in cultivation, this stone is considered rather beneficial than otherwise to the soil, for we find it drier and more forward in its crops for the same latitude, than lands usually are, destitute of this stone. They also, no doubt, assist in keeping it cool and moist during very hot weather in the summer. It is an excellent soil for grass, roots, corn, and especially wheat and the smaller grains; of all which it is capable of producing abundantly.

The Messrs. Raynors have a fine orchard here of 16 acres, which being so near to Buffalo market, they sell the fruit at a good price on the tree, which pays them on an average 10 per cent. interest on the land, valuing it at \$100 per acre, besides leaving them an abundant supply of the choicest fruit for family use, and many refuse apples, which are fed to pigs; and in addition to all this, they cut nearly 2 tons of first quality hay per acre from the orchard. The large bins of apples which they showed us in their cellar, of many varieties, were luscious to look at and to the taste besides, and were so tempting that we were obliged to put an embargo upon ourselves at once, for fear of a surfeit, and when we came to leave we found a large supply in our sleigh box, placed there by way of dessert for our journey. There is no greater luxury than a good orchard, and when planted with well selected fruit, there is nothing more profitable, and we wonder more attention is not paid to them.

It was in the spring of 1839, that a nurseryman proposed to let us have a lot of selected fruit, in exchange for a few pigs. We took the trees, and while planting them with our own hands, along the borders of our garden, (which, by the way, is of a cold tenacious soil, and a bleak exposed place,) one of our neighbors came along, of the *Do-nothing* and *Ill-prophesying* order, and began to comfort us with the assurance, that fruit trees planted in such a cold soil would never thrive; and if they did, by great care, the wind would be sure to destroy them as soon as a little grown; the fruit would be stolen, and we should never have the comfort of it, and he

did not believe anyhow they would ever bear soon enough to do us any good as long as we might live. We were quite credulous to the first assertions, and as we had not then arrived to even the half of the three score and ten years, allotted to man by the Psalmist, we simply answered, "our heirs may," and kept on busily planting. The result is, that last year, the third only after setting out this small number of fruit trees, we had all the cherries and plums we wanted, besides lots of them for our neighbors, and a tolerable good supply of apples and pears. The peach trees all died, because neither climate or soil suited them. To be sure the trees were well advanced that we set out, being from 5 to 6 years old, but it goes to show how very soon one may get a supply of fruit of his own, even in a bad location; and if we were seventy years old tomorrow, and had a rod of spare ground, one of the first things we would do, should be to plant a fruit tree, or fruit shrubs upon it; and to conclude this episode, *Mr. Do-nothing and Ill prophesying*, was the most importunate beggar of fruit we had during the season, and he has done nothing for himself yet, and we fear never will, though he possesses much more and better land than we do.

The Messrs. Raynors have some fine stock, mostly grade Durhams, and they are endeavoring to grow up a choice milking breed for the dairy, by crossing an excellent thorough bred Durham bull, on the best native and grade milkers they can procure. Their pigs also are fine, which they intend shall all be full bred Berkshires as soon as possible, yet with no intention of breeding for sale, but simply for their own fattening.

It was here we saw a new grain fork, the best adapted for pitching sheaves of grain, of any thing of the kind we ever before noticed.

NEW PITCHFORK.—FIG. 22.



Its construction is perfectly simple, and it can be made by any skillful blacksmith accustomed to forge pitchforks. It consists of two tines C, nine inches long, which are spread 2 inches at the shank, and 2 1-2 at the ends. The shank has a sudden curve at the end, of about 2 inches, so as to bring the points of the fork nearly in a line with the direction of the handle and shank. The naked part of the shank B, is 8 inches long, 1 inch wide, by 1-3 of an inch thick, and enters

the handle, which has a ferule A, on the end, of 5 inches, secured to the shank by a strong rivet. The tines and shank are made of the best of German steel, and possess great elasticity, which very much lessens the labor of pitching. The handle may be of any desired length, but should possess as much elasticity as possible. Mr. A. Raynor informed us, he could easily throw a sheaf of wheat over his barn from the load, and that he never pitched so easily with any instrument as this. The sheaf leaves the tines with an elastic spring, and the fork at the same time utters a musical sound, like the tuning fork, when struck, of a music master. Well pleased with what we saw here, and after partaking of a good dinner, we set out again upon our journey.

Though of rather a light soil, it is a fine wheat growing district all the way to Rochester, the raising of which has been quite profitable till this year to the farmers; and large stacks of straw are every where seen on the road, and buildings, stock, and other things, making a beautiful rural picture, even in the dead of winter, and giving the traveler a favorable idea of the comfort, neatness, thrift, and independence of the inhabitants.

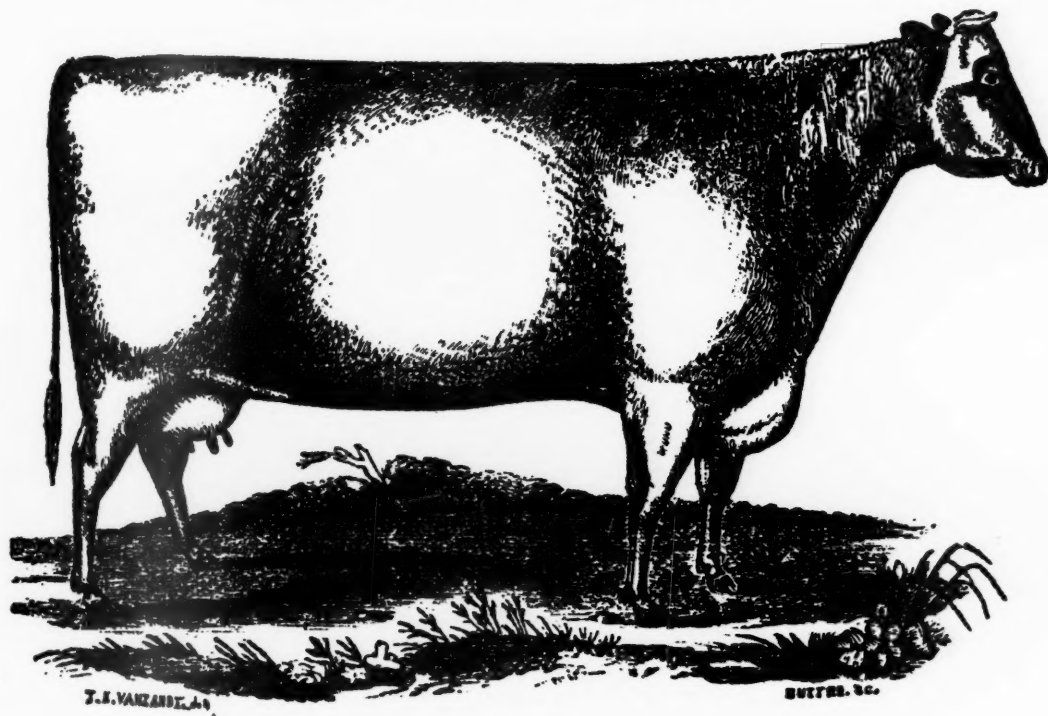
At Rochester we had a pleasant chat with our brother editors of the New Genesee Farmer. We believe it is Mr. Colman's intention to proceed next spring to Europe, to spend a couple of years in taking notes on agriculture, in a similar style to those he published when Commissioner of Massachusetts. This we are not at liberty to officially announce at present, but we hope to be authorized soon. We are certain if he does go, he will present the American public with the most interesting and valuable account of European agriculture ever yet given to it. We shall envy him his tour, if he enjoys half the satisfaction which we did recently in England.

Taking the railroad the same evening for Auburn, we arrived, maugre 15 inches fall of snow, early the next morning. The cars were well warmed by stoves, and with cushioned seats and backs, and our own carpet bag for a pillow, we had a comfortable time of it and a good night's sleep. Soon after our arrival at Auburn, we were called upon by Col. Sherwood, one of the most spirited farmers and stock breeders in that section of the country, who immediately took us to his farm, about one mile from the town. Col. S. only got possession of this place last spring, when scarcely a shed or rod of good fence was upon it. He immediately erected cheap comfortable barns, connected by long sheds

of several hundred feet range, on three sides of a square; thus making an excellent and well sheltered yard for his stock, open only to the south. If our farmers only knew how cheaply this thing could be done, and how much it adds to the comfort of the stock yard, they would not neglect it, as they now do, and leave their cattle exposed all day to sleets and snows, and shivering in a cutting northern wind.

Of course in the dead of winter, nothing was to be seen but the stock, of which Col. Sherwood's greatest pride is his Shorthorns; and of these we may be spared saying much, in consequence of his great success in carrying off so many premiums, at the annual State and County Shows, for the two past years. As a specimen of his stock, we give an engraving of Stella, that took the first prize, both at Syracuse and at Albany.

SHORTHORN COW STELLA.—FIG. (23.)



The property of Col. J. M. Sherwood, of Auburn, N. Y.

The artist has hardly done her justice though, especially in the head and neck, which he has given a bad set. She is a fine large, rangy, fashionable cow, and we recollect greatly admiring her when a two-year old, in her breeder's yard, Mr. Rotch, of Otsego. Her daughter Sylvia, 3 years old, by Hero, has got so fat on grass pasture alone, the past season, that Col. S. has found it necessary to try to reduce her if possible, leaving her out in an open shed, and giving her nothing but wheat straw. She is a superior animal, especially good in handling and in the brisket. Diantha, bred by Mr. Alexander, of Otsego, is much like Sylvia; of same age, and taking the same fare. We much admired Lily also, she is so fine, and shows so much in a small compass. She was bred by T. H. Newbould, of Livingston, out of his imported Netherby, by Cadmus. She has a gem of a yearling calf by Mayduke, bred by the Hon. Adam Ferguson, of

Upper Canada, who claims for this stock an ancient pedigree, bred for more than a century back with great care, in Northumberland, England. Archer, that won the first prize for bulls at Syracuse, we found there in his usual noble presence; but we have not space to dwell further upon these animals, and turn to their manner of feeding, which is precisely like that of the common stock of the country, among good farmers.

Col. S. has commenced with straw and cornstalks, and when these are all gone, and *not till then*, will he begin with his hay. He has a large lot of ruta бага in store, which he is feeding out moderately, to some of the younger animals, and the older ones will have it towards Spring, if any fall away, or a cow has a calf by her side. Kept in this way, the thorough-bred and grades, show a decided superiority in size, and thrift, over the native animals, side by side, fed precisely alike. We wish every farmer in the county

would call upon Col. Sherwood, and satisfy themselves as to the correctness of what we assert, and if they are convinced of its truth, *advance a step further, and take home a Durham bull with them.* Col. S. is determined to sell in accordance with the times. He has a great desire to see fine stock spreading about him, and no one, we think, can object to his prices.

From this, Col. S. drove us to Major Dill's, who has also a fine stock of Short Horns; derived principally, we believe, from Mr. Weddel's breeding. Many of the remarks which we make of Col. S.'s animals, will apply to Major D.'s. His best cow is Gazelle, and his finest heifer Hebe. She took the first prize among 2 year olds, at the State Show at Albany, last September. They are both beautiful, and most correctly and appropriately named.

THE TIMES, AND PROSPECT OF THE PRICE OF AGRICULTURAL PRODUCTS.

Our correspondence is teeming with complaints of the hard times; and we are repeatedly asked our opinion of the future prospects of the farmer. We must confess that this is a grave question, and the wisest and most sagacious may well pause before venturing upon it. Nevertheless we have an opinion, which we shall proceed to state with great diffidence, and our readers can take it for what it may be worth; and that is, we think the times will gradually grow easier, and produce as gradually rise in value. Our reasons for this are these:

1. There has not been a harvest so generally abundant throughout the country for twenty years; we consequently cannot expect so great a one another season. In the September number of our paper, we gave an opinion that we should have an early and hard winter, and before November was half over it came upon us with unexampled severity; and the prospect now is, that it will be followed by a late spring. If so, there will be a much greater consumption of the food laid up for both man and beast, than if the winter were to prove as mild as the past one was. A late spring may make light crops for the ensuing season; and should this happen, produce will rise in price from that cause alone.

2. Pretty much everything now has got down to its specie value, and consequently cannot well go lower.

3. The passage of the tariff law has set many of our artisans to work at their trades again, who, from the necessities of the case,

had become for a few of the past years competitors with the farmers in raising produce

4. An unexampled emigration took place to this country last year from abroad, and this is likely to greatly increase another year. A large number of these people were artisans, and have gone to work at their trades; and as for the rest, they must be consumers at least one year, and in some instances two years.

5. The modification of the British tariff has partially opened a market for considerable quantities of beef and pork, which hitherto, by the high duties there, have been literally prohibited. Large amounts of lard, butter, cheese, and fruits, can also now be shipped to England, and a great increase made in the flour trade. And we shall find all the difference in the world between having rather a *bare* market, than one so glutted as it was in the summer and fall of '41, as to make the holders of beef and pork almost rejoice to find it rotted and become stale on their hands, as was partially the case at one time in New-Orleans.

6. England has at last made peace with China, and in consequence of it, anticipates a greatly increased opening for her manufactured goods in that large Empire; and although all her expectations from this quarter may not be fully realized, still there seems to be no doubt that she can now fully employ most of her idle artisans for a time, which will of course rather increase the market for American provisions.

7. Money is abundant both in Europe and this country for all safe investments, and we do hope to see the spirit of enterprize again start the ensuing spring, in private building and public improvements.

These are the principal reasons on which we base an opinion that there will be a slow and gradual rise in the price of produce. We have given up all hopes of seeing an Exchequer bill passed, or indeed any system of finance established by the present Congress otherwise than what we now possess, viz., the *hard money* currency.

Notwithstanding our markets at this present moment are exceedingly depressed and glutted, we trust the farmer will not despair, but have faith in the future; and if we were able to hold on to our produce, we should be in no particular hurry in selling it. Yet in conclusion, let the farmer be very cautious how he takes credit and contracts debts; and let him not only raise all his provisions, but strive to have as much clothing and all other necessities made in his family as pos-

sible. To those who are out of debt, we don't know but it is as easy to live and make money as when produce brought double the prices that it now does; and at any rate, the condition of the agricultural class of America is singularly felicitous; and instead of repining and longing for things we have not, we ought to be grateful to a beneficent Providence for those we have, and go on cheerfully performing our daily duties, thankful that we are enjoying so many blessings.

Work for the Month.

Stock—See that your stock are well sheltered, well fed, and well watered; that they have plenty of salt once or twice a week; let there be small heaps of charcoal or rotten wood for your pigs to get at and eat as they think proper, and a heap of clay for the sheep and horses, and even horned cattle to lick and eat in their yards and folds, as long as there is snow upon the ground, unless you are feeding them with a few roots daily, with a little dirt adhering to them. Horses, also, should have half a gill of ashes in their food once a week; they give the stomach a good tone, and are the best preventive against bots that we know of; salt is also a good preventive, and by making free use of these, although we have managed horses more or less from boyhood, we never yet had them suffer in the slightest degree in this way. Ashes or lye mixed with the food of pigs, in a moderate quantity, are almost a sure preventive against the kidney worm.

Wood—See that all the wood is cut this month for the year's use, that it may have time to season and burn freely, and thus enable the good wife to pursue her cooking, baking, and boiling, without having her patience exhausted over a steaming fire, and her eyes half put out in a smoky room.

Manure—Where the snow is off the ground, leaves in the woods can be raked up and carried into the stock-yards and stables for litter, and to increase the manure. Mud from the swamps can also be dug and put into the manure heaps, and mixed up with them; and don't forget to add a little gypsum, or charcoal, so as to fix the ammonia, and retain it in the heap. Ammonia is the most valuable part of manure, and millions of dollars have been lost in this country by suffering it to evaporate from the dung heap. It is a gas which you cannot see, but you can smell it strongly, like the spirits of hartshorn, (a carbonate of ammonia,) when you go into a horse stable; as the urine of the horse has a considerable quan-

tity of it in its composition. Now, farmers here is a *hard scientific term* explained, and what is more easy than to understand it? It is certainly as simple as to understand what the tire on a cart wheel means.

Ditching, Draining, and Plowing—Where a milder climate than we have here prevails, these can be pursued with success the present month.

All Tools should now be repaired and put in complete order; and whatever new ones may be wanted for the ensuing season, made ready before hand.

Improve the Mind during these long winter evenings, by reading good and useful books; particularly those on the best systems of stock-breeding and agriculture. How much better it is to be occupied in this, than dosing listlessly by the fire, or indulging in frivolous talk, or gadding about in silly company, or spouting politics in a bar-room tavern.

Annual Meeting of the N. Y. State Agricultural Society.

The annual meeting of this Society is to be held in Albany, on the 20th of this month, for the purpose of choosing officers, hearing reports, and judging of certain farm products and essays. It is an important meeting, and we trust that it will be well attended. We understand that certain reforms in the manner of judging and reporting on prize animals and products will be offered at this meeting, and we hope they will be carefully considered and weighed, and if thought beneficial to the great cause for which this Society was formed, that they may be adopted. Ever since we have attended agricultural meetings, we have been dissatisfied with the manner in which judgments were formed and prizes were awarded; and have thought them, at times, so *darkly*, arbitrarily, and capriciously rendered, that we have been led to doubt, now and then, whether the formation of such societies has not done more harm than good. But, upon the whole, the good has greatly predominated; yet this good may be made still better, increasing and increasing, till it has arrived at results in all the operations of agriculture and stock-breeding, as sure and immutable as the working out of a mathematical problem. What glory to itself would not a society attain by such a course; and that it is attainable, we as fully believe as that the sun will rise tomorrow. We shadowed forth our opinion upon these matters in the August number of this periodical; and it might not be considered respectful to the Society, now to pursue the subject further. We therefore forbear.

By the generous encouragement of the State Government, the liberality of a few of our citizens, and the efficient services of its able and indefatigable officers, the Agricultural Society is in a fair state of prosperity. Its show, last September, at Albany, was, upon the whole, quite gratifying; perhaps five times as great in animals and products as at the preceding autumnal show, at Syracuse. The concourse of people also was thrice as large, showing an abiding and increasing interest in these things. We have no doubt but all these matters will be greatly increased at Rochester next year; and to make it more certain, we hope the meeting will be appointed as early as the first week in September. It must be recollected, by going two degrees north, we get into a colder climate. Animals also appear better at this season of the year, and are more cheaply provided with food. Southern gentlemen, and all persons from abroad, are also more likely to visit the show than if held later; and these are becoming important customers to us as stock purchasers.

We think the Secretaries and Treasurer of the Society ought to be salaried officers; their duties are really too onerous to be expected to be performed voluntarily for any length of time, and we ought to be grateful for the indefatigable exertions so long freely offered; but to expect a continuation of them gratis, is, in our humble judgment, asking too much, although we believe the present incumbents would never think of accepting a reward. By giving these officers salaries, they could devote more of their time to the Society, and therefore, perhaps, become more efficient. It has been thought, also, that to have a Treasurer or Secretary to go round among the people, and personally solicit subscriptions, would add greatly to the number of members and the funds of the Society. In these last the Society finds itself sadly crippled, and could greatly increase its usefulness and premiums by an addition to them. Let all then who possibly can, attend the coming annual meeting, or at least, add their names to its members and subscription list.

To Kill Lice on Cattle, &c.

Lice on cattle or hogs, are immediately killed, by rubbing the animals with lard, whale or indeed fish oil of any cheap kind. Rancid lard answers the same purpose as if sweet. We have found these applications quite as effectual as mercurial ointment; and unlike that, it is not attended with the slight-

est danger. We once lost a valuable Short-horn cow, by applying mercurial ointment, she turning her head round and licking herself, the mercury gathered by the tongue badly salivated and killed her in three days. The only objection to the use of lard, is, that it causes cattle to shed their hair rather too early in the Spring in cold climates.

Another remedy has lately been suggested to us, which we have no doubt is equally effectual, but never having tried it, we cannot speak so positively about it. This is simply buttermilk, strongly salted, and applied to the coat of the animal with a brush. When nits are on the hair, the above applications should be made at the end of every three weeks, so as to destroy the lice as fast as hatched out.

Copying Articles without giving Credit.

✂ We frequently find in exchange papers, articles copied from our publication without giving us credit. We would particularly instance the one on Locust Trees, furnished us by Judge Beatty, and Reports to the American Institute, and Synopsis of Agricultural Society proceedings. Although these last were not written expressly for us, we were at considerable trouble and expense in obtaining and printing them, and we deem it no more than right and just, that credit should be given to the source from whence they were taken. It affords us great pleasure to be quoted from, but we certainly like to have a knowledge of the fact stated at the same time.

ORCHARD GRASS.

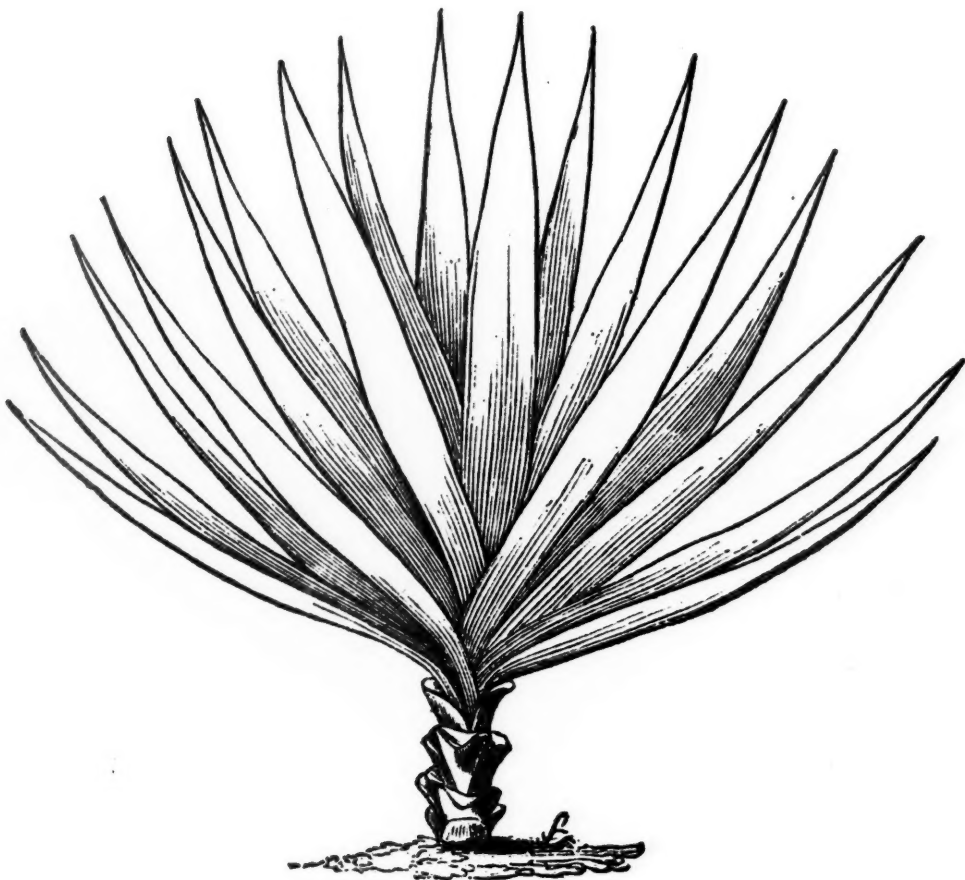
Our attention has been called to the cultivation of this valuable grass, by a communication of Mr. White of New-Jersey. We have had but little experience ourselves in growing it, in consequence of our land not being properly adapted to it. One experiment in an orchard succeeded well, the others not so well, which we easily accounted for in two ways: the seed we used was not properly cleaned, and it came up in tufts; the soil also was too wet and heavy. We recollect that the late Judge Bradley, of Marcellus, in this state, one of the most practical and enlightened farmers of his day, was a strong advocate for the cultivation of orchard grass. We found it quite a favorite in our travels through Ohio, and the reasons which farmers then gave us for its cultivation were, that it afforded them the earliest spring food of any of the cultivated grasses, and yielded the largest quantity per acre;

that its growth was rapid, and particularly succulent for stock, if kept within a moderate height by feeding; that it made a fair quality of hay, flowered and ripened at the same time with clover, so that they could always be advantageously cut together; and if rain soon followed mowing, it sprung rapidly up again, giving them, in favorable seasons, three cuttings, of about a ton to a ton and a half each; and finally, it grew vigorously in the shade, when other grasses would scarcely flourish.

A friable loamy soil suits it best; and if

the seed be properly cleaned, and a sufficient quantity put into the ground, there is no danger of its coming up in tufts. We never saw a more even and luxuriant vegetation, than this grass presented in the fields of Ohio; and we have every assurance that this advertised by Mr. White, is well cleaned and of a good quality; and the price at which he offers it is much lower than usual, \$4 to \$5 per bushel, being more often asked. It may be sown in the spring, with wheat, oats, &c. A sample of the seed can be seen at this office. See advertisement.

SPECIMEN OF A SISAL HEMP PLANT.—(FIG. 24.)



Above, for the consideration of our southern friends, we give an engraving of the celebrated plant, from which Sisal hemp Agave Sisalana is made. It seems to be the object of our Government now to encourage the production of hemp, as it has hitherto done that of cotton; and as the Sisal is grown to a considerable extent in Mexico, we should be glad to learn if it has yet been effectually introduced into the United States. The late lamented Dr. Perrine, of Florida, we believe, made some attempts at cultivation, but as we have never been advised of the re-

sult, we do not know whether they were successful or not.

This hemp is not only used in Mexico, for ropes and twine, but it is manufactured into many other articles, such as valises, and household utensils; it is said also, to make one of the cheapest, best, and most desirable kinds of paper. It must be recollected that 60 years ago, the daughter of General Green first raised a few cotton plants, merely for their beautiful flowers, and now what a source of wealth and production this is to our country. We do not believe the diffe-

rent kinds of hemp and flax can ever become of as varied and universal use as cotton, but each may largely contribute their quota to our riches, and we should feel rejoiced if we could revive attention to the above promising and useful plant.

National Silk Convention.

A National Silk Convention was held at Northampton, Mass., in September last, which was unusually important and interesting. We condense below a synopsis of its proceedings.

It was unanimously Resolved by the delegates, a highly intelligent body of men, from different parts of the country:

That there are ample grounds for confidence in the silk business.

That the causes of failure are transient, while those of success, diet, and climate, are permanent.

That American silk in the state in which the worm leaves it, is first rate.

That a climate and soil adapted to the successful growth of Indian corn, is every way suited to growing silk.

That the natural growth of the mulberry in the United States and China, indicate the adaptation of this country to the silk culture.

That there is every encouragement from past experience, for continued and increased attention to this subject.

That the present tariff for the protection of this article, is satisfactory.

That the state Legislatures are earnestly solicited to promote the culture of the raw material, by offering a bounty, till the country is abundantly supplied for the manufacturers.

And finally, "that our manufacturers and other business men have now every reasonable encouragement to invest, in a wise and careful manner, their funds in this new form of domestic labor—growing and manufacturing silk."

Wild Bees.

The peculiar instinct of this curious little insect which determines it in the choice of its home, has never been satisfactorily given. They sometimes obstinately refuse to occupy a hive, which apparently is perfectly suited to them, and push their way to a remote and uncomfortable place, every way illy suited to their comfort and convenience. What influences them in rejecting the one and seeking the other, and is this new home before determined on? We hope some of our correspondents, more familiar with the subject, will enlighten us.

We once found a swarm of bees snugly sheltered under the combined foliage of a grape vine and the limbs of a small tree, to which it was clinging. No other protection was afforded than this, and the whole comb was exposed to the full force of the elements, yet the swarm appeared perfectly thrifty and healthy.

Ladies' Department.

For the American Agriculturist.

TO MAKE SOUSE.

Boil a pig's head or feet four or five hours, or until very tender, take out all the bones, and lay the meat in a stone jar; boil vinegar with cloves, pepper, and a little salt, mix with this so much of the jelly from the water, in which the meat was boiled, as will prevent too much acidity, and with this liquid cover the meat entirely. When wanted for use, cut it in slices, and after heating it in a frying-pan, pour off the liquid, and brown the meat, or dip the slices in batter, and fry in a pan just rubbed with butter or lard.

A REMEDY AGAINST SCARLET AND TYPHUS FEVERS.

A bath of weak lye and water, or simply bathing the feet in the same, is said to be very beneficial in Scarlet Fever.

It is also stated that contagion from Typhus Fever may be prevented by producing nitrous acid gas. "This may be done in the following way. Place a little pounded saltpetre in a saucer, and pour on as much oil of vitriol as will cover it; a copious discharge will ensue, whose quality may be regulated by lessening or increasing the quantity of materials."

CURE FOR AN INVETERATE COUGH.

Fifteen to twenty-five drops of laudanum, mixed with a teaspoon full of magnesia and a little water, taken every night before retiring.

NUT-CAKES, OR DOUGH NUTS.

While your lard is melting to boil your cakes, mix two cups of buttermilk and two of cream, with two or three eggs, one teaspoon full of saleratus, and plenty of fine cinnamon and flour enough to roll; made in this way, they are more tender and less liable to harden, than when raised with yeast.

ELLA

ORIGINAL CORRESPONDENCE.

For the American Agriculturist.

Prospect Hill, Ky., Nov. 7, 1842.

GENT.—In conformity with the request, contained in your letter of the 14th Sept., I proceed to give you such information as I have been able to obtain, respecting the large crops of corn, noticed in Agricultural Journals, as having been raised in Kentucky, in the year 1840, which was a very favorable year for that crop.

The crop raised by George W. Williams, Esq., of Bourbon county, in that year, on one acre and one eighth, was 178 bushels, and consequently the product, *per acre*, was 159½ bushels. These facts appear from the certificate of the gentlemen who measured the

corn, contained in the 8th number of the 4th vol. of the Kentucky Farmer. I have this information also directly from Mr. Williams, and have no doubt of the correctness of the facts detailed. The Louisville Journal is therefore in error in stating the quantity raised by Mr. Williams to have been 167 bushels *per acre*. This corn was raised on soil naturally as fertile as the best Kentucky lands. Mr. Williams states, that "it had been in meadow for many years previous to the last seven. The five first of the last seven, it was in hemp; the last but one it was in rye, and the last in seed hemp." It had also the advantage of "a thin coat of stable manure, in its unfermented state, spread on the ground in April, just before ploughing." The season was very favorable for the corn crop, rains having fallen in sufficient abundance, and in proper time to produce first rate crops. Everything, therefore, was favorable to a great yield.

Mr. Williams' method of cultivation was as follows: "As soon as it could be done, after the frost was out of the soil, gave it a deep plowing with a Cary plow; in April, spread manure as above; then cross-plowed with the same plow; then harrowed; then laid off the rows two feet apart with a shovel plow, dropped the seed in the bottom of these rows, as near a foot apart as I could; covered with hoes, and in so doing made the surface level, every clod being crushed with the eye of the hoe; and I then pressed the whole down tight with a good roller. When the corn was about one foot high, I had the weeds cut with a sharp hoe by scraping, great care was taken not to break the surface, nor to hill the corn. It had but one hoeing of this sort." Mr. Williams remarks, that in this experiment "he was governed by the principle that the *roots* were not to be *broken*; that a good bed was to be given the roots to occupy; that *light* and *heat* should get to them equally, and that the whole power of the soil should be brought into action without being burdened."

In Mr. Williams' method of planting, if none were missing, there would be one stalk of corn for each two square feet, or eight stalks for sixteen square feet, whereas if the ground had been laid off, as usual in rich land, four feet each way, and three stalks left in a hill, there would only have been three-eighths as many stalks; or if four had been left in a hill then there would have been just half as many stalks.

During the same year that Mr. Williams raised the crop described above, I measured

from an acre of corn growing in a field cultivated in the ordinary way, which had been chequered off four feet each way, and three stalks left in a hill, one hundred and five bushels of corn. This was of the yellow kind, and of medium size. If Mr. Williams' corn had yielded in the same proportion, according to the number of stalks, the product per acre would have been 280 bushels, but it was only 158 $\frac{1}{2}$, and hence it is evident the ears on his corn must have been, comparatively, much smaller, and probably more than double in number.

If it is intended to leave upon the ground a number of stalks equal to one for each two square feet, Mr. Williams' plan is doubtless a very good one. The stalks all stand single, in the rows, having a space of a foot each, and the rows being two feet apart, are as well arranged for admitting the sun and air, as could be effected with so great a number on the ground. If the season should be *favorable*, and the *cultivation of the best kind*, it is not easy to perceive how a greater quantity of corn (of the like kind,) could be raised upon an equal space of land, *of the same fertility*, and equally well *adapted* to this crop. But if the season should be such as we not unfrequently experience—a very dry one—it appears to me that a crop of corn, planted at the rate of a stalk for every two square feet, would produce but a small yield; and that it would be a hazardous experiment to risk an entire crop, so essential to sustain our stock, for the chance of the increased quantity, resulting from this mode of planting, where every thing turns out in the most favorable manner.

The labor bestowed by Mr. Williams, in cultivating his corn, was certainly not as great as usual. But it must be recollected that the ground on which it grew, had been many years in meadow and hemp, with only one crop of rye. The soil must, therefore, have been almost entirely free from weeds, and in fine condition for raising corn, with very little labor. If the ground had been foul, much more labor would have been necessary; and it may be reasonably doubted whether a good crop could be raised in very weedy ground, without the use of the plow, or more manual labor than the crop would justify.

Having given, in detail, Mr. Williams' method of raising an experimental crop of corn, in 1840, I will now state that of Mr. William R. Duncan, of Clark county, the same year.

"The land," says Mr. Duncan, "had been

in grass for about twelve years preceding. Soon as the frost had left the ground sufficiently to admit of plowing, I put in two Cary plows, running one after the other, in the same furrow, the first one cutting through the sod, say two inches in depth, the second six inches deeper, and completely covering the sod turned over by the former. About the middle of April I put my plows into it again and cross-plowed it. I then harrowed it with a very heavy two horse harrow, marked it off 3 1-2 feet each way, and planted with three or four grains in each hill. Three shallow plowings was all the after cultivation." Mr. Duncan, for reasons which he assigns, departed from the usual practice, in plowing his sod a second time. If the sod was blue grass, as I suppose it to have been, from the long time it had stood in grass, I am of opinion, that whilst he added considerably to the labor, he added nothing to the quantity of the yield by the second plowing.

Mr. Duncan states the product of one acre of his crop at a fraction under 120 bushels. Sod ground, especially blue grass sod, yields considerably better the second year, after the sod has had time to decompose, and form an intimate union with the soil. Mr. Duncan's crop was not produced, therefore, under the most favorable circumstances,

General James Shelby, of Fayette county, obtained the premium, at the Jessamine County Fair, for the year 1840, for the best five acres of corn. The product of these five acres was at the rate of one hundred and ten bushels per acre. His mode of cultivation is not given, and I have no information on that subject.

The Kentucky Farmer, in giving an account of this Fair, says there were six competitors, but for reasons, of which the editor was not fully informed, all withdrew, except General Shelby, to whom the premium was awarded. "None of those, who withdrew, produced less than 110 bushels per acre, and two produced over 190 bushels per acre." In the succeeding number, (page 61) in speaking of the large crops of corn, which our soil is capable of producing, by proper cultivation, the editor says, "The crops of Messrs. Bryant and Young, of Jessamine, referred to in our last, that of General Shelby," &c. From this quotation I infer that the crops of Messrs. Bryant and Young were those spoken of as exceeding one hundred and ninety bushels per acre. The circumstance of these gentlemen withdrawing, as competitors for the premium, when their crops were so much better than that of Gen.

Shelby, is calculated to produce some doubt whether the facts were correctly reported as to the amount of their actual product. That I might be enabled to report to you the true state of the case, I addressed a letter of inquiry to Thomas B. Stevenson, Esq. late editor of the Kentucky Farmer; in reply to which, he assures me, that he wrote letters to sundry friends, and conversed with others, who saw the crops of Bryant and Young growing, and witnessed the advancement; and from these various sources of information he was fully convinced of the correctness of the facts reported, as to the produce per acre of the crops of Young and Bryant. Among other informants was Tucker Woodson, the Senator of Jessamine County, with whom, he remarks, "I am personally acquainted, and in whom I know that perfect reliance can be placed. There can be no doubt, therefore, that the crops of these two gentlemen did yield over 190 bushels per acre, that is to say the five acres which competed for the premium, but which were withdrawn from the competition."

The reason for withdrawing these crops is explained by Mr. Stevenson, but I do not deem it necessary to repeat them here.

Mr. Stevenson was not able to give me any information as to the mode of cultivating these crops, other than what is contained in the Louisville Journal, to which you refer me, except that Young's crop "was grown on a piece of made ground, formed by a mill-pond." I cannot account for the yield being so much greater than that of Mr. Williams, whose method of planting, I think, is better calculated to produce a larger yield, all other circumstances being equal. Probably the corn planted was of a larger and more productive kind. The soil may also have been better adapted to the corn crop.

The above crops were all produced in 1840. The present year has been quite a favorable one for the corn crop, and I was very desirous of giving you the product per acre of a very heavy crop, which I saw growing about the first of October, on the farm of Isaac Cunningham, of Clark County. I wrote to him, soon after getting your letter, and requested that he would have an acre of his corn gathered, and carefully measured, and report to me the quantity, together with his mode of cultivation, &c. I regret that a severe indisposition, from which I fear he will not recover, has prevented my request from being complied with.

Mr. Cunningham's corn was planted on a rich soil, which had lain ten years in blue

grass, and it was the second year after it had been plowed. The sod, when I saw the corn growing, had been completely decomposed, and the soil was very mellow and light. The corn had been carefully cultivated by plowing each way, and was perfectly free from weeds. It had been planted 3 1-2 feet apart, and thinned out to four stalks in a hill. It was yellow corn of medium size. From a personal examination, I estimated that each hill would average four good ears, one hundred of which would make a bushel of shelled corn. As an acre, planted 3 1-2 feet each way, will contain 3,556 hills, *nearly*, the number of ears would be 14,224; and consequently the product would be 142 bushels per acre. I give you this as my estimate, which cannot be far from the truth; and I regret that I could not give you the result, by actual admeasurement.

Yours truly,

A. BEATTY.

For the American Agriculturist.

The Genesee County Fair.

This took place on the 20th and 21st September. It was characterised by a good spirit, and was much superior to the two preceding ones. This was gratifying, as a general fear existed that there would be a failure. There was a large exhibition of cattle, many of which were of a high order of excellence. With the exception of some working oxen and one cow, not a single animal of native cattle was in the yard. All were either pure or grade of the Durham or Devon. The conviction that the improved breeds are superior is thus shown, and a doubter need only have seen the animals that day to be no longer a doubter. The grade animals were in excellence, just in proportion to the amount of breeding. Bulls were shown by some six or seven competitors. Among them were four thorough bred ones and one of those imported.

The premiums were awarded to Z. Cone, Esq., for his bull, 3 years old, and a cross of the Devon and Durham, bred by P. A. Remsen, Esq., got by the imported bull Alexander, dam, by Holkam, a Devon. The second to E. C. Dibbles, imported bull, a Devon, from the herd of Mr. Davy, of North Molten, Devonshire, England; the third to Mr. Durham, for his grade bull, by imported Rover, formerly owned by Mr. Weddle, of Monroe Co. Mr. Remsen exhibited his superior bull, Enterprise, by imported Alexander, dam, imported Lavinia. Animals of all the different races or crosses were shown in the same class. This should not be. A Devon and a Durham may each be of the highest order of merit, and yet there can be no fair comparison made between them.

The show of cows was superior, especially of grade ones. The cow to which was awarded the first premium in the class of Durhams, weighed more than sixteen hundred. The first premium for Durham cows was awarded to P. A. Remsen, on his cow Premium, bred by himself, got by imported Volunteer, dam, by Otto; the second to S. Skidmore, on his cow, got by imported Alexander, dam by Otto; the third to P. A. Remsen, on his cow Beauty, bred by himself, got by imported Volunteer, dam, imported cow Adelaide. In Devons, the first premium was awarded to Mr. Beck; and the second to Mr. Beck; the third to T. Cary, Esq. Mr. Beck exhibited several beautiful pure Devon cows

and calves; they were of a high order of excellence. In working cattle the exhibition was rich; Mr. Remsen showed a pair of 5 year olds, which weighed 1,975 lbs. each. Their superiors at the same age can hardly be shown. They were grass-fed only, and have been in the yoke when required, all summer. The show of grade heifers, (there was not a pure Durham heifer, and only one pure Devon heifer on the ground,) was capital. Two shown by B. Murphy, of Le Roy, were beautiful. Mr. Dibble's pure Devon heifer was universally admired. There was a large number of bull calves shown, and to Mr. Dibble's was awarded the only premium in this class, which was not of a high order; in it Mr. Remsen exhibited a superior calf, but he was too young for competition. In heifer calves of all breeds the first premium was awarded to P. A. Remsen, for his pen of three Durhams; and beautiful they were; and the second to Mr. Beck, for his pen of three Devons; in this class all races being shown. It may be observed, that there is less difference in classes than in the grown animals of the Devon and Durham.

The display of hogs was inferior; indeed this is not a pork-producing county, none being raised except for home consumption.

In sheep there were some superior animals shown, both among the Leicesters and the South Downs. Those of Mr. Shapland, of Stafford, to which was awarded a premium, were highly admired and beautiful. There were not a large number on the ground, but the quality was as superior as the number was small.

In horses there was nothing more than an average exhibited in stallions, mares, and colts. A pair of horses, well matched and capital, exhibited by Mr. Gould, of Batavia, received the first premium, and another pair by Mr. P. T. Fargo, received the second. In the matched horses there was a decided superiority.

Of roots and grains there was a meagre display. There was no exhibition of wheat; and no crops offered for premiums. This was owing to a partial failure of wheat this year. It is said there was a third less than an average, and the berry by no means good. Two years since, Lewis Clark, of Darien, received a premium for a crop of 61 bushels to the acre. To Mr. Cone was awarded the first premium for corn—on two acres, of 77½ bushels to the acre; to Mr. Lewis Clark, the second for 69 bushels; both crops were of the Dutton corn, both well manured, and cultivated without hilling. A frost on the 11th of June injured both pieces. The corn was sound and of a good quality. In roots the yield was very moderate.

Of domestic articles the display was large and beautiful. There were two very superior Ingrain carpets made from wool, grown, spun, and dyed in the county. They were exhibited by the manufacturer, who resides in Bethany. The figures were beautiful and the colors brilliant. There was a Wilton rug made by a lady of Bethany and her daughters. Its beauty and excellence in material and taste, placed it in the rank of the most superior of the imported ones. The Committee on those articles awarded it a premium, saying that they had never seen its equal, and it was the unanimous opinion of all, that the Committee were right. There was beautiful broad cloth; indeed cloth of every description. Silk in great variety, from the cocoon to the woven material; beautiful sewing silk and twist; indeed the silk display was admirable. There were hats, boots, shoes, counterpanes, quilts, table covers, shawls, &c., in great quantities, and all admirable. One table cloth most beautiful, was exhibited by Miss Heston, of Batavia.

In butter and cheese there were few competitors. All the butter shown, was superior. Mr. Z. Cone ex-

hibited some boxes of excellent roll butter, and received two premiums. There was but one single cheese offered. This county is not a dairy county. Prior to the division in 1841, of what was then Genesee county, there were many dairies in the county and large quantities of cheese produced, but the division formed the territory into two districts, the grazing, now Wyoming, and the grain growing, and at present it is a fact that there is not in Genesee county, a single large dairy.

The President, Theodore C. Peters, Esq., was to have delivered an address on the first day, but owing to the late hour at which the Fair ended, being quite 5 o'clock, it was omitted to be spoken, but will be published. It should have been delivered on the ground while the Committees were viewing; and it is suggested so to do whenever the weather will admit. This at once secures the largest audience.

On the second day the plowing took place, and was well done. The number of spectators was large, and the interest great; indeed the plowing here as everywhere, constituted one of the main features of the fair.

Immediately after the plowing was over, there was a large assemblage at the Court House, to hear an address from Mr. Colman, the editor of the *New Genesee Farmer*. His address was capital, was listened to with pleasure, and will no doubt produce good. Its object was to show, and it did show, the necessity and facility of progress in agriculture. Mr. Colman's personal appearance and manner, gave force and attraction to his address; indeed he is a very agreeable speaker.

To this succeeded the reports of committees and the election of officers. T. C. Peters was re-elected president.

The fair was characterised by a spirit that ensures success; all seemed animated, interested, and satisfied. D.

For the American Agriculturist.
Fairs in the West

GENT.—Will it interest your readers to hear how we "do up" things in the prairie region of the west? I have just attended two:—The first at La Porte, Ia., Oct. 13, 14. La Porte is one of the new counties of Northern Indiana, which have sprung into existence within the last ten years. It adjoins Lake Michigan, and has a port and unfinished harbor, called Michigan City, from which an immense quantity of wheat goes down the lakes; mostly to the Canada market. The county has an extensive prairie called "Door Prairie," one of the very finest for all kinds of grain, but not equal to those of a more clayey soil for grass. The county, although destitute of mountains, hills, and dales, yet abounds in good mill seats, upon never-failing streams, many of which are improved by fine flouring mills.

The show of stock was small, but indicating that the spirit of improvement has at length begun to show itself in the west. There were some good Durhams, and improved native cattle, and several fine samples of Merino, Saxon, and South Down sheep—and the gentlemanly Berkshire was there in his pride and beauty. The exhibition of butter, and cheese, and household manufactures was such as plainly to show, that that portion of the community which is the life of all our agricultural societies, had here lent their good works to promote the good cause in good order.

There was also a show of fine fruit, such as no one could expect in so new a country, unless he well knew the remarkable productiveness of our soil.

But the proudest part of the show was of the human species—men, women, and children—old and young, of

all classes and occupations, turned out to make this what every agricultural fair always should be, a most joyous farmer's festival—an annual public thanksgiving. And as public drinking is out of fashion, a public dinner was substituted. The tables being arranged in one of those beautiful Bur-oak groves which are only to be found in this country of groves and prairies, were covered with a profusion of good things furnished by the hundreds of fair hands who graced the feast by their presence. The whole scene being enlivened by what should always accompany such a festival, a fine band of music, volunteered for the occasion.

It was a day, as all such should be, well calculated to promote and increase the general stock of human happiness.

I reached home from the La Porte Fair on Saturday, and on Monday I started again to attend the Fair of the "Union Agricultural Society," of Northern Illinois, held at a place called Aurora, on Fox River, 40 miles west of Chicago, on the 19th and 20th October. This "Union" is formed out of nine of the northwestern counties of the state, almost the entire population of which, has been made up of eastern emigrants since the time of the almost forgotten "Sack War," of 1832, when General Scott struck terror to the Indians, and the cholera struck terror to his army.

"What a change" in ten years! Those of the magic lantern are scarcely more magical. Then the food of the little army had to be brought from the lower lakes and carried upon pack horses across the great desert between Lake Michigan and the Mississippi. Then a steamboat had never visited the little garrison and trading post of Fort Dearborn, now the flourishing city of Chicago, whose harbor is crowded with steamers, ships, and schooners, full freighted up with emigrants and merchandize, and down with wheat and other products of the rich soil of the vast land of unsurpassed fertility, lying around the head of Lake Michigan.

Now every grove is surrounded with highly cultivated farms. The streams abound with fine mills, manufactories and villages. The country is intersected with roads, and the streams are crossed with bridges, while splendid stage coaches career over them in every direction.

While addressing the audience at the late Fair, I could not avoid drawing the comparison between the encampment of Indians upon the same ground ten years ago, who never broke the soil in search of sustenance, and the six thousand happy, healthy, smiling, intelligent cultivators of the earth then gathered together to enjoy the "farmers' holiday."

Talk no more about the magnitude of your eastern fairs, unless at such a time as your late one at Albany, you can muster at least one hundred thousand.

Here too, some plan in regard to a public dinner was adopted as at La Porte; and I had the satisfaction of sitting down to a most sumptuous dinner with *three thousand* guests; one-third of whom, were the *wives and daughters* of Illinois farmers. This, sirs, is a specimen of the spirit that is abroad upon the prairies of Illinois. And this too, in a country that is still looked upon by your eastern readers, as a vast wilderness, sparsely settled by a demi-civilized race of inhabitants.

I presume after what I have said of the "gathering of the people," I need not assure you that the other part of "the show" was highly creditable to the society. I must not forget, as I have been a strong advocate of having music at all agricultural fairs, to tell you that here too, the company were enlivened not only by one but two bands of music, both cheerfully volunteered for the occasion, while in the procession

floated nine appropriate banners, one for each county embraced in the society.

The officers and members were distinguished by badges, and the marshals by wands peculiarly adapted to the occasion, for they were *immense stalks* of Indian corn.

But enough upon this subject. I only wished to let you know that we can do something else here in the west beside raising wheat at 40 cts. a bushel.

It is my intention soon to give you an article descriptive of this prairie region.

Be assured Messrs. Editors of my personal esteem, and earnest hope for the success of your journal.

I remain yours, &c.

SOLON ROBINSON.

Lake Co. H., Ia., Nov. 4th, 1842.

Three thousand guests at table certainly beats our state show at Albany, and fully equals the number who sat down to dinner at the meeting of the English Royal Agricultural Society, at Liverpool. But we hope to come up to this number next year at Rochester, and that Mr. Robinson, and many of his prairie friends will be there as partakers in the good things which will undoubtedly be provided for the occasion.

We insert another valuable article from Mr. Partridge, on *City Manures*, and beg to call the serious attention of the neighboring farmers to it. Let them not be deterred from reading this communication, from the use of the scientific terms in it, for the sooner they understand them the better it will be; and they must recollect, that it is quite out of the question for the writer to convey the information, without making use of them. But all may understand the general meaning, and by gathering up and making use of even a part of these fertilizing resources pointed out, they will gain for themselves what would pay for many years subscription of this paper.

For the American Agriculturist.

To our Farmers who obtain Manure from the City of New-York.

In my last I brought to your notice two fertilizing materials heretofore thrown away in our city. I shall proceed in this and future essays, to bring forward all others that may come under my inspection.

There was one error in my last which I now rectify. In referring to charcoal dust I am made to say, that "it can be bought at two shillings per barrel, and that a friend had bought sixty barrels at that price." It should have been one shilling per barrel. This is the dust left in the bottoms of the vessels after selling the large coal.

I shall now bring to your notice the article of soap lees, i. e. the lees thrown away by our soap boilers. This material is one of the most valuable fertilizers the farmer or gardener can collect, with the exception of ammonia. When soap is made with caustic potash lye, and then hardened with the soda of salt, the liquor run off will contain muriate of potash, with a small

portion of free potash. If this liquor contained no other ingredient, the best application would be to add 2 gallons of it to 20 gallons of water, and let it fall on the land by the same process that our streets are watered. There is, however, another material combined with it, which makes it the interest of the consumer to put it into a compost heap with charcoal. There is in every hundred weight of fat used by the soap boiler, two or three pounds of thin filmy skin, which do not enter into the soap; and this being dissolved in the lye, passes off with it, and when decomposed in a manure heap, will furnish a large supply of ammonia. To prevent its evaporation when formed, the presence of charcoal or plaster will be necessary.

When soap is made with barilla, the residuum will contain muriate of soda, carbonate of soda, and some caustic soda; together with the animal matter as mentioned above.

The value of this material can be accurately estimated by those using it, when I inform them, that five gallons of the lye contains in solution more than two pounds of potash, when made with potash lye, and hardened with salt; or of soda, when barilla is used. This is as much alkali as would be contained in three barrels of soapers' ashes.

A gentleman near Hartford, Conn., has used soapers' lees as a manure, and speaks of its productive powers, as far exceeding his most sanguine expectation.

The next material I shall call your attention to, is the blood now thrown away at our slaughter houses. This material is one of the most valuable of the fertilizers, and should be placed in a manure heap, with a large portion of charcoal, or plaster, to absorb the ammonia formed during its decomposition. An addition of caustic lime would greatly facilitate the process. It is a compound material, consisting of three salts of soda, and extractive matter. One of the salts of soda is a phosphate, which indicates its peculiar applicability to the potatoe, as this plant contains more phosphate of lime than any other culinary vegetable. It also contains considerable prussine, which readily passes into ammonia when decomposed by fermentation. Some few years since dried blood was employed as the animal matter in making prussiate of potash.

I shall now direct your attention to the liquor thrown away by our gas houses. I can speak of this material experimentally, having sold thousands of pounds of single and double F ammonia made from it. To those farmers and gardeners who live at a distance from New-York, I would recommend to mix with this liquor a large quantity of ground plaster, stirring well several times, and then covering down until the plaster has all settled to the bottom. The plaster in this case will absorb the ammonia, and the precipitate may be conveyed away at a small expense. A much smaller quantity of charcoal would answer than of plaster, but in this instance the application would be far more troublesome and tedious. Those who live near can cart it away in casks, and place it in their compost heaps, adding charcoal, as before directed for ammoniacal applications. Land already containing charcoal may be watered with this liquor, by mixing it with eight times its measure of water, but if put on in its full strength, the vegetation then in the soil will be destroyed by it. This effect is, I believe, called by our farmers burning. I presume, if a man were to be stuffed with food, however nutritious in moderate applications, until he were filled to the mouth, he would die under the operation; just so it is with vegetation, when over-fed with alimentary food.

I would suggest to one or more of our enterprising

gardeners, to place some of the empyreumatic tar, collected in making gas, and of that produced in distilling pyroligenious acid, into a compost heap, adding to it charcoal and quick-lime, and try its fertilizing powers.

I shall proceed to call your attention to the coal ashes, and the soot, now thrown away in our cities.

There can be no farmer so ignorant as not to know that soot is an exceedingly valuable fertilizer. To my knowledge it has been collected in England, and sold to the farmer for more than sixty years. One hundred weight of it is considered equivalent to a single cart load of barn-yard manure; yet our Long Island farmers have permitted the immense quantity supplied by sweepers in New-York and Brooklyn to be thrown away. Now supposing we have seventy-five thousand chimnies in New-York and Brooklyn, each chimney swept twice a year, and each sweeping to afford twenty pounds of soot, there will then be thrown away fifteen hundred tons of soot per annum. This would be amply sufficient to enrich annually three thousand acres of land.

Soot, by analysis of Braconnet, is found to contain fourteen distinct materials, all of them good fertilizers. Rather more than thirty per cent. is similar to a material made from sawdust and potash; about twenty per cent. is animalised matter, soluble in water; fourteen per cent. is carbonate lime; more than ten per cent. is acetate and sulphate of lime, and about five per cent. acetate of potash.

Our farmers will perceive, from the above analysis, that every one hundred pounds of soot contains more than seventeen pounds of potash, or more than three hundred and forty pounds in every ton. Thus we prove, that if all the soot thrown away in New-York and Brooklyn could be applied to our Long Island farms, they would obtain a supply of potash alone equal to five hundred and ten thousand pounds annually, equivalent to twelve hundred barrels, and this only equal to one-third of the fertilizing properties of soot!! Let me ask our intelligent farmers if they will continue to permit so valuable a material to be thrown away?

The ashes of coal is a valuable material for pasture land, more particularly when the sod lies on clay, or when it becomes mossy. In applying ashes to such land I have seen it produce surprising effects; but I have never had any experience of its application to arable land. I should consider, however, *à priori*, that it could not fail to be highly beneficial to heavy soils.

WM. PARTRIDGE.

Mr. R. H. Hendrickson, of Middletown, Ohio, writes us under date of 25th November, 1842:

"I will give you some idea as to the crops of corn in the Miami Valley, from Dayton to Cincinnati. It will average 65 bushels per acre, which is from 15 to 20 bushels more than the average crop for the last five years. I have about half finished gathering my corn, and it has yielded from 85 to 100 bushels per acre. I shall send you some seed corn in the spring."

We shall be happy to receive it and make a gratuitous distribution among our friends. Mr. Hendrickson has taken much pains to perfect the seed of his corn, and we know from personal inspection of it on his farm last year, that it is very superior. It should not be planted, however, above 40° of north

latitude, and on a rich soil. It is of the gourd seed variety, the ears large and the cob small, in proportion to the length of the grain. That it is a great producer it will be seen by the average which Mr. Hendrickson gives of his crop, and this is not a very uncommon yield with him. For seed at home, like Gen. Harmon of this state, with his seed wheat, he asks but a moderate advance on the market price of common corn.

Technical and Scientific Words.

We don't know but the letter below of Mr. Meadows is a fair hit enough, and have concluded to publish it. For ourselves, we shall endeavor hereafter, in selecting our phrases, to go oftener to the pure well of Saxon, rather than to the muddy waters of Latin English. Still, we assure our readers, that it is quite impossible, without much circumlocution, and not even then, to express certain ideas without the use of scientific and technical terms. And let the plain farmer consider one moment, and he will find that no profession abounds with more technicalities than his own, plain and familiar as they may appear to him; a matter which we could easily illustrate, but our correspondent has done it so well, with his best and most useful instrument, the plow, that we forbear. We repeat the suggestion to our farmers, and beg them to consider, and above all to act upon it.

There is no neighborhood that does not possess more or less well-informed, if not scientific men. If all then would form themselves into a club, to meet one evening a week throughout the winter; what with a few books and periodicals, and mutual question and answer, they would soon be as wise in the points and physiology of cattle; and the chemistry, geology, and botany of agriculture, as their boys now are of the different names of the different parts of the plow, and the action and management of the team that draws it. It requires no more effort to learn the one than the other, and the day is fast coming, when that man who remains behind the useful knowledge and improvements of the age, will be farming it at a sad loss.

As our correspondent dates from the classic local of Sleepy Hollow, we hope he may find some Ichabod Crane to enlighten all who wish to learn in the school of agricultural science; and if he does, we covenant to secure him against the graceless Brom Bones of that region, and promise him some fair Katrine's hand for his pains; together with

the goodly fields for inheritance, on which the renowned Van Tassel obtained those abundant crops that so dazzled Ichabod's eye as he rode up to his Dutch cottage. We shall be pleased to hear from Mr. Meadows again.

For the American Agriculturist.

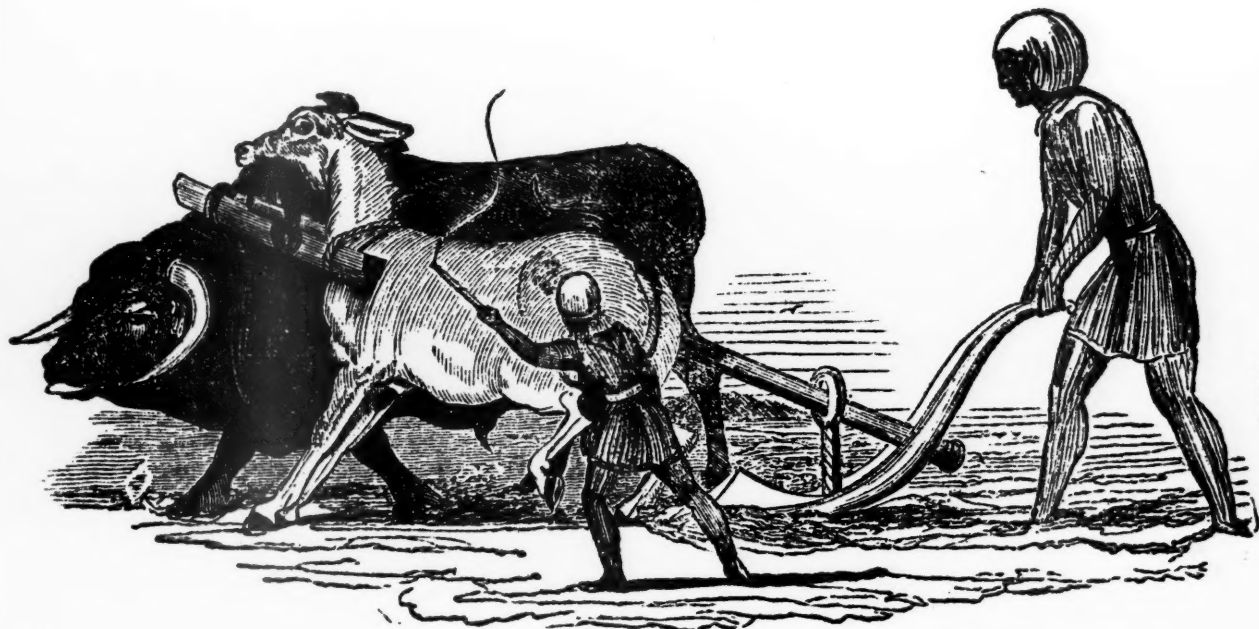
GENT:—In soliciting subscribers for your paper, I get along very well in the country, except being met with the objections, ten thousand times repeated, of "I don't like so much *book farming*, and so many *hard words*. I reckon the best way is to take hold with my own hands after all, and let chemicals, geolicals, and botanicals go; and pints and physiicals in cattle, take care of themselves. I don't understand them, and can't see what good they do plain hard working folks."

Now it strikes me, Messrs. Editors, as if such persons have about as much reason in their arguments, in persisting in not reading about, and adopting the scientific improvements in stock breeding and agriculture, as the Egyptian had, whom an acquaintance of mine once found at work on the fertile banks of the Nile, in refusing to exchange his antiquated plow and team for one of more modern construction.

I have often heard him recount the colloquy with great good humor; although I suspect at the time of holding it, he got rather warm, and a little out of patience with his obstinate interlocutor.

Landing from his boat one day, to visit some colossal ruins a little way back from the river, he came across a native plowman, laboriously following his profession, something in the following style.

AN EGYPTIAN PLOWING.—(FIG. 25.)



"Coming up, and accosting him as well as his broken Coptic would allow, he says:

"Well my friend, you seem to be working rather an ancient instrument here; pray have you never seen any of our new American plows?" taking a book from his pocket, and showing him a handsome engraving of one. "See its sharp pointed share, and long wedged turned mould board; horizontal beam, with a coulter to it, to cut the sod in advance, and a wheel to regulate the depth of plowing; the iron clevis in the end, and a chain hooking into it, and stretching to the yoke, by which the cattle pull it along, with more ease than they can yours; at the same time turning three times the width and depth of furrow, and doing the work three times as well; and here is a dynamometer attached to it, which shows you every second if you please, just how much force is employed in drawing it."

The Egyptian stops, stares, scratches his head, and lifting up both hands in amazement, replies, thinking all the time his interrogator may have just dropped from the moon.

"America! Mould-board! Coulter! Wheel! Clevis! Chain! Dynamometer! Why these are all hieroglyphics to me, and I know nothing about such scientific terms. This is the plow my forefathers have used for

3,000 years; I am no innovator, no book farmer, and know nothing of your technicals; neither our priests, wise men, or magicians ever spoke of these things."

"True my good fellow, I suppose not; but new principles have been discovered in soils and vegetation, and great mechanical improvements have been made in farming instruments within these 3,000 years, at least in my country; and our boys, no bigger than this youngster of a teamster, who is flourishing his whip on that obstinate mule of yours, would laugh at such a plow as I see here, and they are just as familiar with what you please to term *book farming*, and scientific terms, as they are with their bread and butter. And another thing, what a queer sort of yoke you have got there; why, bless me, my friend, instead of those ropes round the necks of your cattle, which seem to me a little too much like the bowstrings of one of your own despots, sent here to strangle them; if you would but just look at one of our easy setting yokes, and neat bows, into which the teams throw their whole weight and strength, bearing up nicely against their breast and shoulders."

"I tell you," says the Egyptian, "I know nothing about such things, they are all hieroglyphics to me."

"Hieroglyphics to you," replies the American, growing rather warm in his earnestness. "well, it is about

time you made it full blooded Yankee, my ancient; (ass he was going to say, but seeing one of the four legged progeny before him, corrected the thought before giving utterance to it,) I tell you your mind is as obstinate, and as much hardened against obtaining knowledge, and doing the right thing, as one of your own kings was, at about that favorite epoch of yours, 3,000 years ago; and if you don't beware, and learn what is offered to be freely taught, you may possibly fare yet something as Pharaoh did, and get drowned in the Red, or rather I would call it the *Black Sea* of your own ignorance. And here you have got an ox and a mule working together I perceive. Why man, don't you know better? And don't you see that the mule, true to his nature, has perversely planted his feet forward in the ground, and has thrown himself back on his haunches, and seems obstinately determined not to budge another inch; so that the poor ox has a double load thrown upon him, for he must drag the mule now and the plow too, notwithstanding all your boys flogging. No wonder the poor fellow lolls so much, and no wonder your ground is so miserable scratched up; why I should just as soon think of hitching on to the tail of a crocodile, and drag him over the land to plow it, as to such a quaint old fashioned thing and gearing as this. It is well my friend, (growing cooler after this exhortation,) that you have a good soil here, or you would starve to death, thin as you are, and as little as it takes of lentils and soup to fill that drawn-up stomach of yours. Why don't you yoke an ox with an ox, and not with an ass? Don't you know it is forbidden, and that it is written, thou shalt not plow with an ox and an ass together?"

"God is great," answers the Egyptian, "and Mahomet is his prophet—but he ain't an ass yet."

"Very true," says my narrator, no longer able to contain himself, "but he is *next neighbor* to it, as well as *another* object I have in my eye;" and despairing of a convert to "scientific terms" and "book farming," he turned away to examine the colossal ruin before him, and was soon lost in a reverie over its magnificence and grandeur.

I was going to add, Messrs. Editors, more remarks of my own to the above colloquy, but fearing that I have already exhausted your patience with my long story, I forbear.

Your ob't. serv't,

JOHN MEADOWS.

Sleepy Hollow, Tarrytown, Dec. 1842.

Chemistry.

The respected writer of the letter which follows, Judge Garnett, of Virginia, has anticipated what we had just taken up the pen to say; and as he has expressed himself so much better than we should probably have done upon the subject, we cordially welcome him to our columns. What he thinks it "not extravagant to predict," namely, "Doctors for our land," we saw already in practice last year, to a certain extent, in several parts of England; especially in draining, forming water meadows, mixing manures, and even *prescribing*, if we may be permitted to use the term, a rotation of crops, and rules for stock breeding. We do not mean that such persons have yet assumed the title of Doctors, (although they are better entitled to it

perhaps, than many who kill and cure *secundum artem*;) but there are regular professors on some of these matters, and a few dependent upon such profession for a reputable and reasonably lucrative living.

For the American Agriculturist.

TO MESSRS. A. B. & R. L. ALLEN:

GENT.—The following translation from a French Periodical of high reputation, was given to me the other day, by a young friend; and I now send it to you as a very suitable article for your paper. In my humble opinion, it is calculated to impress upon the minds of all our brethren who will read it, the necessity of acquiring a scientific, as well as practical knowledge of our profession, before we can have any right to expect that we shall be able to carry it to that degree of perfection of which it is certainly susceptible. Could the belief in this necessity become common, I do not think it extravagant to predict that we should soon have Doctors for our lands, as well as for our bodies; and that the analyzing of soils, of the various cultivated plants, and of all substances used as manures, would become a distinct and lucrative profession. Scarcely any farmer, I should think, who had faith in his Doctor, would hesitate to give him a fee in exchange for such knowledge, as would enable him at once to know what crops it was best to cultivate on his particular soils—what fertilizing substances were most suitable to each variety, and what plants were most nutritious for feeding any kind of farming stock. To attain this multifarious knowledge in the common way, and to any very useful extent, requires the experience of a very long life; and after all, the farmer who relies upon that alone, must proceed very much at random in many of his operations. Whereas, the skilful agricultural chemist, after ascertaining the composition of his soils, could enable him at once to know how to manage them in a way most improving to them, and profitable to himself—at least so far as this depended upon the choice and application of manures—the particular rotation of crops, and their relative values as food, either for man or beast.

In the subjoined extract, I was particularly struck with the valuable properties which the Jerusalem Artichoke, has been ascertained to possess, and which, but for the analysis of the agricultural chemist, would never have been known to us. Although a hardy root, and one which will grow in almost any soil or climate, there are probably thousands of us who never save it, and are utterly ignorant of its nature. But now it will soon be known to the whole agricultural community; and for *this knowledge* be it remembered, we are indebted, not to the mere practical farmer, who knows nothing of the principles of his profession; but to the man of *science*, as well as *practice*: in other words, to the agricultural chemist.

With sincere wishes for the success of your valuable paper.

I remain gentlemen,

Yours respectfully,

JAMES M. GARNETT.

Extract from the number of the *Revue des deux Mondes* for the 1st of August, and from an article on the "Nouvelles Tendances de la Chimie," by M. Quatrefages.

The sources of the oxygen, hydrogen, and carbon in vegetables are known; but whence comes the fourth element, the azote, which is not less essential to them, and still more necessary to the herbivorous animals? The vegetable kingdom offers various answers to this

question, for while some of its species derive their azote from the air, others receive it from decomposed organic matter, that is, from manures. This consideration will show what important practical interest may be found in results which appear purely scientific.

Every one is aware of the importance of this question of manures, which in all ages and countries, agriculture has been striving to solve. Thayer proved theoretically that the more a substance was animalized, that is, azotized, the more readily did it restore the fertility of exhausted soils, and M. Boussingaut has ascertained that the most active fodder is that which contains most azote. The exhausting action of vegetation is principally exerted on substances that contain this element. The question of manures then may be thus stated: to ascertain what plants draw least azote from the manure, and with them to raise herbivorous animals; whose dung will restore to the earth the azote requisite for plants which derive their element from the manures only.

M. Boussingaut has attempted this problem by direct experiment. He weighed and analyzed the more common seeds, and the manure used in their cultivation. By a comparison of these weights with the produce obtained, he proved that the crops generally contain twice as much carbon as the seeds and manure; the surplus must have been derived from the atmosphere. The same crops had doubled their hydrogen, but contained only one and a half times the original quantity of azote. There were some exceptions to these general results. Thus in the wheat crop we find precisely the same azote as in the seed and manure, for wheat takes only carbon, oxygen, and hydrogen from the air. The Jerusalem artichoke, on the contrary, quintuples the carbon, and doubles the azote of the seed and manure. A hectare of land, planted in artichokes, takes from the air in two years 13,000 kilogrammes of carbon and 130 kilogrammes of azote.

These results interest the economist as deeply as the *savant*. Such researches are peculiarly attractive to the statesman who considers that agriculture constitutes the true wealth of nations, the only wealth beyond the reach of political revolutions. It is plain that the cultivation of the Jerusalem artichoke a common and hardy plant, must prove very useful. Experience here confirms the predictions of theory. The culture has been greatly extended of late years in Alsace, and it is to be wished that the rest of France would follow the example of a province where agriculture is most advanced.

But when plants are surrounded by atmospheric air, and thus in a manner bathed in azote, why are azotised manures so necessary? Because azote, to be useful, must, like carbon and hydrogen, be united to other bodies. It enters the plant in the state of ammonia, of azotic acid, or of an azotate, and is there reduced, so as to form with water and carbon the vegetable substances most needful to the animal kingdom. These facts explain the office of manures, and bring the problem of their production to this very simple expression; to produce ammonia cheaply and fix azote at the least cost.

Gin bands.—The letter which follows, from Doctor Vaiden, details a great saving in the cost of gin bands, and as he is a practical planter, we have no doubt of the value of this substitute for leather; and at any rate, being made from cotton, will more strongly recommend its adoption among southern gentle-

men, and adds another item to the consumption of the great staple article of the south.

For the American Agriculturist.

Shongalo, Mississippi, Nov. 29, 1842.

GENT.—As your paper has a circulation among the cotton planters, any thing promotive of this interest you should publish. Every individual in this country who has a cotton gin, before starting it, is subjected to the trouble and expense of procuring a gin band at the cost of one dollar per foot, (if made well,) besides consuming a buckskin annually, and a half hour daily in repairing it. I was subjected to all this until recently, when it was proposed by a friend who had tried it, that I should substitute one of cotton towels for the old one made of leather. This was agreed to, and within a few hours, my gin was in successful operation, without having ever annoyed me by breaking or throwing the band. The manner of making, is simply to cut the cloth the right length, doubling it into six folds; which, if it be a yard wide, leaves it six inches, then stitching it the entire length with strong thread, often enough to keep it from puckering. The cost of the one made of towels is \$2, that of the leather from \$30 to \$40.

C. M. VAIDEN.

From Doctor Phillips' letter of 29th November, we make the following extract:—

"I think we of Mississippi, can raise wool for sale, cheaper than the north can. I would not say about diseases, but so far as my experience goes, disease is very trifling. We can have pastures the year round, on land that costs not the tithe of your eastern lands, and no expense but salt and minding. At all events, we can have mutton—that meat of all meats.

"I have heard of an engagement of home made pork at 3 cts per lb., and of corn having been sold at 25 cts. per bushel. This certainly speaks well for necessities, and if we, as farmers, will only continue to do thus for five years, we shall be more independent, though cotton, our great staple, commands a low price. I am not sure but the low price will be a permanent advantage, for many of us will devote time and attention to improve our condition, both as regards our domestic concerns, as well as our minds; and when we have fallen into the plain way, I think the most of us will steadfastly pursue it.

"I have had the pleasure of reading over the great doings of your State Show and Fair. Great times you must have had. May it be greater and greater, until our whole country becomes interested and engaged."

For the American Agriculturist.

Cone's Dynamometer.

GENT.—I send you a rough drawing and description of a very cheap, simple, and effectual Dynamometer. Every farmer can have one if he chooses; the only thing is to hit upon some plan to have them uniform throughout the Union.

Mr. Cone exhibited his plan at the Genesee Cattle Show and Fair, in October. The time was so short, however, after the plowing match was over, that it could not be applied to any of the plows. It was sufficiently tried, however, to satisfy any one as to its accomplishing all that could be required of the most perfect instrument.

Take the beam of any patent scales that will weigh as high as 10 or 12 cwt. Suspend it by the upper hook, and put sufficient weight upon the lower hook to balance the beam. Then hang upon the small end a one pound weight, and put sufficient weight upon the

lower hook to balance. Ascertain the number of pounds upon the lower hook requisite to balance the one pound. The beam used by Mr. Cone required 32 pounds on the weight hook to balance one at the small end. *Fix the lower hook to the clevis of the plow, and the beam to the upper hook. The small end runs out upon the land side, at right angles to the plow. From the small end of the beam bring a wire near to the handle of the plow; attach to this wire the upper end or hook of a common spiral balance, and make the other end of the balance fast to the plow. The spiral balance becomes the index to the force required to move the plow.* Thus if the index of the balance marks 14 pounds, then the force exerted on Cone's scale would be $14 \times 32 = 448$ pounds.

You perceive at a glance, that the principle is perfect. It brings the index directly under the eye of the plowman, and it is easy of application to any other subject, when it is desirable to ascertain the force necessary to move a ponderous body.

In applying it to a plow, it should be so constructed as to work perpendicularly instead of horizontally. This could be done by having a guide made fast to the beam, in which the beam of the Dynamometer should play. The balance could then be made fast to the upper slat or round of the plow, and be more convenient for observation; besides it would not be affected by any inequalities on the surface of the ground.

Unless some person takes up the subject, I fear we shall not have a uniform scale. I wrote to Mr. Ellsworth, the Commissioner of Patents, asking him to give the dimensions, and then we should have it uniform throughout the Union. If no other person does it, I will prepare one by the first of February.

Sincerely yours, T. C. PETERS.

Darien, N. Y., Dec. 1842.

We are much obliged to Mr. Peters for his clear description of the above invention of a new Dynamometer, which we have no doubt is the most simple and exact yet constructed. We would have gladly accompanied the description with an engraving of the drawing, but could not get it ready in time. As we passed through Batavia, on our way here, last month, Ambrose Stevens, Esq. gave us a verbal description of the same invention. We wish some of our ingenious mechanics, after reading Mr. Peters' letter, would send us a model, or at least a complete drawing of this Dynamometer, together with any improvements which they could suggest.

In the London Farmer's Magazine for November, we find Mr. Clyburn, of Uley, has improved the old Dynamometer, by adding a recorder, to determine the draught of the plow, which is thus described:

"It consists of a sheet of paper, wound on a cylinder, which revolves as the plow proceeds. This sheet unwinds, and being marked by a pencil attached to the index of the instrument, carries away on it an irregular line, which represents all the variations in the draught of the implement.

"After two or any other number of implements have been successively tried, the Dynamometer may be detached, and the paper, on being unwound, will be found to have marked on it a series of lines, each cor-

responding to its own implement, and expressive of its draught. A comparison of these lines will determine which of the implements was lightest, and which was heaviest in this particular."

FOREIGN AGRICULTURAL NEWS.

The late arrivals from Europe have brought us our regular files of Journals and Magazines, for November and December, and we make a hurried condensation of a few of the articles.

DRAINING.—In the London Farmer's Magazine for November, Mr. Rutley, in a speech before the Maidstone Farmer's Club, states that he cheapens draining, and saves half the expense of tiles, by digging the drains twice the usual depth, but double the usual distance apart. His reasoning is, that the descent of the water from the centre to the drains in both cases is the same; and he finds his method safer, and equally, if not more effectual, than the one formerly practised, even in stiff clay soils.

LOSS OF AMMONIA BY USE OF LIME. SALT AND LIME FOR KILLING SEEDS OF WEEDS.—A writer on manures, in the West Briton, contends that if unbleached wood ashes or quick lime is mixed with dung, it drives off the ammoniacal vapor which is contained in it.

As ammonia is the most fertilizing part of manure, and especially necessary to perfect the seeds of plants, it cannot be too much guarded and preserved. Those farmers who have been in the habit of mixing unslacked lime with their manure, will now see that they have committed a great error, and subjected themselves to a heavy loss.

The same writer asserts, that four gallons of salt, and eight gallons of lime, mixed with two loads of weeds, are sufficient to kill all the seed in them.

AMERICAN PORK, HAMS, AND LARD.—A correspondent in the Liverpool Albion affirms, that he finds American pork, recently imported there, sweeter and better than English; he also states that American hams, sent down the Ohio, via New-Orleans, are equal to the famous Westphalia. For the former he is charged 6d. per lb., for the latter he paid 9d.; the Westphalia ham being 50 per cent. higher than the American. He attributes the superiority of the American pork to its being fattened on Indian corn.

We know from our own taste, that Ohio hams, particularly those cured at the best packing houses in Cincinnati, such as Mr. Neff's, for example, are equal to the best European; and as for pork, we never eat anything which possessed more sweetness than the well-fatted American.

LARD.—The above writer also highly praises and recommends to the English to use it in frying fish. We are surprised to hear that they never practised this delicate method of cooking fish before!

A great hue and cry has been got up against cheap American provisions, by those opposed to their introduction, in order to prejudice the British public against them; but they will not succeed. When our meats of all kinds, beef, mutton, and pork, are properly fed and cured, they are equal to any in the world; and now that British duties are reduced upon them, we shall look for a large exportation, and a great increase of wealth from this source to our country.

CHEMICAL LABORATORY.—Earl Ducie has introduced a chemical laboratory into the farm house of his example farm, as one of its permanent fixtures; not only for the purpose of analysing soils, but also to assist in manufacturing and testing the qualities of different manures.

FARMER'S CLUBS.—In the December number of the London Farmer's Magazine, we find a proposition for

establishing a Farmer's Club in London, where all who come up there on business or pleasure may form a re-union, on the same plan as at other club houses, or something like our own reading rooms; except that the clubs are more extensive and varied in their accommodations, having conversation, dining, and other rooms attached to them. This would not be a bad idea to act upon in this city. Will the American Institute think of it?

AZOTE.—Mr. Edward Addison has broached what he calls a "new theory of the action of azote," which we may more particularly allude to hereafter. He contends that it is very necessary to supply it in sufficiency to the soil, so that it may convert larger quantities of the carbon of the soil and atmosphere into grass, grain, and root crops; for he believes that azote is the principal element which nature makes use of in procuring food for plants. We have looked in vain through his article for any experiments or facts to support his "new theory."

CRITERIA OF BREED IN PRIZE ANIMALS.—Mr. George Drake proposes to the Royal Agricultural Society to erect a *standard of character* for every class of stock to be exhibited hereafter for premiums; also a *standard of form*, and every point necessary to constitute a *perfect animal*, to be noticed according to its importance, and have its proper influence in the decision of the judges—and much more to the same purpose: but as this subject was proposed and fully discussed by ourselves, as long ago as in the August number of this paper, for the regulation of American Agricultural Societies, we need not quote further from Mr. Drake's communication. We are glad, however, to find ourselves seconded by such high authority, and are more and more satisfied every day we live, that *no fixed scientific improvement* will take place among the great mass of breeders, till some such rules are established.

CORN TRADE.—In his reviews of the corn trade, the Editor is particularly fierce against the new British Tariff, which now permits the introduction of American meat and flour more freely into England; and he declares so emphatically, that "our field laborers cannot compete in cheapness of living with the *helps of America*," it causes one to smile at the apparent misery of the man; more especially when we consider, that ever since we have become a nation, we have been England's best customer, and that the balance of trade from this quarter has generally been largely against us.

COUNT DE GOURCY.—The Editor continues in the December No. his translation with notes, of the Agricultural Tour in England and Scotland, of the Count de Gourcy. The style is easy and conversational, and the remarks of the Count in his travels are generally quite correct. He is, however, somewhat credulous in setting down for *facts*, pretty much all John Bull happened to tell him; but we cannot much wonder at this, when we consider how finely he was feasted from place to place. His Journey in England must have been quite a gala day to him.

But we have no further room for foreign summary, and must forbear notice of New Farmer's Journal and other periodicals, till February No.

To Correspondents.

The unavoidable absence of the Editors from town, the greater part of the last month, has prevented full attention to our correspondence, and several favors are necessarily postponed till next number; nor have we had time to give a private answer yet to such as demand it. We hope to be able to finish all up the ensuing month.

Col. William Moore of Winnsborough, South Carolina, wishes to know about the May Wheat. Will Mr. Harmon have the goodness to reply to him direct, or to us, stating his prices at home, and delivered in this city, for all his varieties. His memorandum, if left here, has been mislaid. The Silkworm Eggs are inquired for, and all other matters, and Col. M. will be written in a few days.

Editor's Table.

Our thanks are due to John Caldwell, Esq. for his Address at the Orange County Fair.

Dictionary of Arts, Manufactures, and Mines, by Andrew Ure. Illustrated with 1241 engravings.—We are indebted to Messrs. Appleton & Co. for the 21st and last number of this able and useful work, from which we have repeatedly selected during its progress through the press. These enterprising publishers now propose a re-issue, in five monthly parts, at \$1 per part, of 300 pages, with an average of 250 plates to each. It is neatly printed, with clear type, on fine white paper, and seems to us, with so many engravings, amazingly cheap.

The Natural History of New-York. Part I. Zoology. By James E. DeKay.—The Messrs. Appleton have also called our attention to the first vol. of the series of the State publications, from the recent Geological survey. It is a large quarto, beautifully printed, from the press of T. Weed, State printer, and contains about 40 splendid lithographic engravings, illustrative of the Mammalia of New-York, executed by Endicott, of this city. The reputation of its author is a sufficient guarantee for the literary and scientific character of the work. Our learned, accomplished, and indefatigable Executive, Governor Seward, has given an introduction of nearly 200 pages, full of instructive matter, connected with the State and its institutions. The whole series, when complete, is intended to give a connected and enlarged view of the National History of New-York, and will form a proud monument to the enlightened policy and liberal spirit of our citizens. May other States follow this example.

Sale of Durhams.

We understand that Mr. George Vail, of Troy, has sold to Mr. J. F. Scribner, of Sheldon, Vermont, a fine Durham cow, and bull calf, by his Duke of Wellington, for whose portrait and pedigree, which are exceedingly rich, see December No. of this paper. Mr. V., has also sold other Short horn stock the past year into Vermont, and the north part of this State, of all which it rejoices us to hear. Our dairy and grazing farmers in that region, may depend that they can resort to no animals with a greater prospect of success in improving their native breed, than to Durhams; and in making selections for this purpose we recommend such as are of medium sizes, and especially those possessing fine bones. In this last particular, as well as other good points, we know Wellington to excel.

On the Inorganic Elements of Plants.

This is Part II, of the Lectures, on the application of chemistry and Geology, to Agriculture, by Professor Johnston, of England. We have not had time to read this work, but from the acquaintance we have with the preceding lectures, we have no doubt that this is equally able and searching. Professor Johnston has a happy style, and endeavors to make it as popular as possible, by using no more scientific terms than are absolutely necessary to express his meaning, and these he explains in advance. It is handsomely re-printed by Wiley and Putnam, from the latest English edition.

Messrs. Wiley and Putnam have politely called our attention to the magnificent folio, now complete in 14 Parts, of Professor Lows Illustrations, of British Domestic animals, embracing the horse, ox, sheep, hog and goat. The plates are beautifully colored after nature, and are about 50 in all. The price of the whole work, is \$50.

Several other publications were handed in, but too late to be noticed this month.

REVIEW OF THE MARKET.

Prices Current in New-York, December 31, 1842.

ASHES, Pots, per 100 lb.	\$ 5 50	to 5 75
Pearls, do.	7 50	.. 7 75
BEEWAX, Yellow, per lb.	29	.. 29½
COTTON, Louisiana, do.	6	.. 10½
Upland, do.	5½	.. 9
Florida, do.	6	.. 9
Alabama, do.	6	.. 10
FEATHERS, American, live, per lb.	25	.. 30
FLAX, American, per lb.	8	.. 8½
FLOUR, Northern and Western, via Erie Canal, per bbl.	4 62	.. 4 87
do. via N. Orleans.	4 62	.. 4 75
Southern, per bbl.	4 50	.. 4 87
RYE, per bbl.	3 00	.. 3 25
MEAL, Corn, per bbl.	2 50	.. 2 02
do. per hhd.	12 25	.. 13 00
WHEAT, Western, per bushel.	90	.. 1 00
Southern, do.	70	.. 80
RYE, Northern, per bushel.	58	.. 69
CORN, do.	52	.. 54
Southern, do.	49	.. 53
BARLEY, per bushel.	48	.. 50
OATS, Northern, per bushel.	31	.. 32
Southern, do.	23	.. 24
PEAS, Field, do.	86	.. 1 15
BEANS, White, per bushel.	1 21	.. 1 43
CLOVER SEED, per lb.	6½	.. 7
TIMOTHY SEED, per tierce of 7 bu.	10 00	.. 10 50
FLAX SEED, rough, do.	8 50	.. 9 00
clean, do.	—	.. —
RICE, per 100 lb.	2 87	.. 3 12
HEMP, Russia, per ton.	210 00	.. 215 00
American, water rotted do.	280	.. —
HOPS, first sort, per lb.	10	.. 12
LEAD, Pig, per lb.	3½	.. 3
Sheet and Bar, per lb.	4½	.. 5
OIL, Linseed, American, per gal.	80	.. 82
PLASTER OF PARIS, first quality, per ton, unground do.	2 25	.. 2 75
BEEF Mess, per bbl.	6 12	.. 6 75
Prime, do.	2 75	.. 3 50
Cargo, do.	1 75	.. 2 00
PORK, Mess, do.	7 50	.. 9 50
Prime, do.	5 00	.. 6 50
LARD, per lb.	7	.. 8
BUTTER, best Table, per lb.	13	.. 15
Western, good, per lb.	10	.. 13
Shipping, do.	6	.. 8
CHEESE, in boxes and casks, per lb.	5½	.. 6½
HAMS, Smoked, per lb.	7	.. 9
Pickled, do.	—	.. —
Shoulders, smoked.	—	.. —
BEEF, Smoked, do.	6	.. 7½
SALT, Liverpool, ground, sack	—	.. 1 47
do. fine, do.	1 62½	.. 1 76
SUGAR, New Orleans, per lb.	4	.. 5½
TOBACCO, Virginia, do.	3	.. 5
Kentucky, do.	2½	.. 5
TAILOW, American, do.	8	.. 8½
WOOL, American Saxony fleece, per lb.	32	.. 37½
Full blood Merino do. do.	28	.. 30
Half to three-fourths do. do.	24	.. 26
Native to half do. do.	18	.. 22
SHEEP PELTS, each.	—	.. —
HAY, per 100lb.	56	.. 62½
POTATOES, new, per bushel.	25	.. —
EGGS, per 100.	1 00	.. —

REMARKS.—Ashes, Cotton, Flour, Wheat, Oats, Beef, and Lard, have slightly advanced since our last; while Corn Meal, Rye Flour, Corn, Rye, Flax Seed, Linseed Oil, and Sugar, have slightly fallen. Hemp, there is but a light stock of Russia here. Money is abundant, and specie accumulating in our Banks. Good City Paper is readily discounted, and Stocks are firmer; and altogether a better feeling with business men, although no material changes can be announced. At New Orleans, they have a light stock of Lard on hand. At Cincinnati, upwards of 70,000 hogs have been already slaughtered; but notwithstanding this unusually large number, pork had slightly advanced and was firmer. Several houses there are packing for the English market, and we are of opinion that no great surplus of meat will be left on hand after the season is over, as has been the case the two past years.

New York Cattle Market—Dec. 26.

At market, 825 head fresh Cattle—100 from the South; 30 Cows and Calves, and 800 Sheep and Lambs.

PRICES.—BEEF CATTLE.—Owing to the holidays, prices are not quite so firm as last week, and the sales are from \$3 50 to 6 for best cattle.

Cows and CALVES.—All at market taken at 21 to 25 dollars.

Sheep and Lambs.—All sold at \$1 50 to \$4 for Sheep, and 1 to \$2 25 for Lambs.

Works pertaining to Agriculture for sale by Saxton & Miles, 205 Broadway.

Johnson's Elements of Agricultural Chemistry and Geology, 50 cents; Do. do. 1 vol. 12mo. \$1; Gray's Botanical Text Book, \$1 50; Lindley's Horticulture, \$1 25; Gray's Agricultural Chemistry, \$1 00; Downing's Landscape Gardening, \$3 50; do. Cottage Residences, \$2 50 Leibig's Organic Chemistry, \$1 25; do. Animal Chemistry, \$1; Buel's Farmers' Companion, 87½ cents; Fessenden's Complete Farmer, 87½ cents; Cobbett's American Gardener, 75 cents; Blacklock's Treatise on Sheep, 50 cents; The American Farmer's Instructor, \$1 62; A Treatise on Cattle, \$2 50; Dana's Muck Manual, new edition, 62½ cents; Boswell's Poultry Yard, 50 cents; &c. &c.

Orders from any part of the United States punctually attended to, at the cheap cash book store, 205 Broadway

Wanted—A Person who understands the rearing of Silk Worms, and reeling Cocoons, to go to South Carolina, to manage a Mulberry orchard of 6000 trees on shares. For further particulars, address post paid, the Editors of this paper, stating on what shares the applicant would be willing to manage the above.

CHARLES STARR, JR.,

MENDHAM, MORRIS COUNTY, NEW JERSEY.

Will be prepared, the coming Spring, to execute orders for thorough bred Berkshire Pigs, from the imported boar Hagbourn, and a superior boar of Windsor Castle family, and fifteen choice sows, lately procured from A. B. Allen, of Buffalo, New York.

Pigs from this superior stock, from 2 to 3 months old, will be delivered, well caged on shipboard, at New York, for \$25 to \$30 per pair. Feed furnished when desired at \$3 per barrel.

Persons desiring either pigs or full grown animals, can be supplied with all the advantages of Mr. Allen's stock at Buffalo, without incurring the risk and cost of canal transportation—the advertiser's residence being but half a day's journey from New York.

ORCHARD GRASS SEED FOR SALE.

The Subscriber offers for sale Seed of the best quality of the above valuable variety of Grass, at \$2 50 per bushel. Apply to ROBERT WHITE, JR., Shrewsbury, New Jersey, or the Editors of this paper.

SHEEP FARM FOR SALE.

The Subscribers offer for sale, or to let, their extensive Sheep Farm, situated in La Salle County, State of Illinois. The Farm consists of upwards of 1500 acres, over 400 being enclosed by substantial picket fence, and improved; the balance dry rolling prairie and timber, most admirably adapted to sheep husbandry, for which purpose it has been used by the Subscribers for the last two years successfully.

The Flocks of Sheep can be sold at the same time, if purchasers are inclined. They consist of over 1500 good strong healthy white-faced Cheviot breed; also two fine Paular Merino bucks, lately purchased of a celebrated breeder at the East.

If the Farm cannot be sold for cash, offers will be received for renting the same for two or three years. Apply either to JOHN ROSE, Little Vermilion, La Salle, MURRAY & WARD, Chicago, Ill., or JAMES MURRAY & Co., Buffalo, New York, either of whom will give every information wanted.

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